AMERICAN

FEBRUARY · 1956

Cinematographer

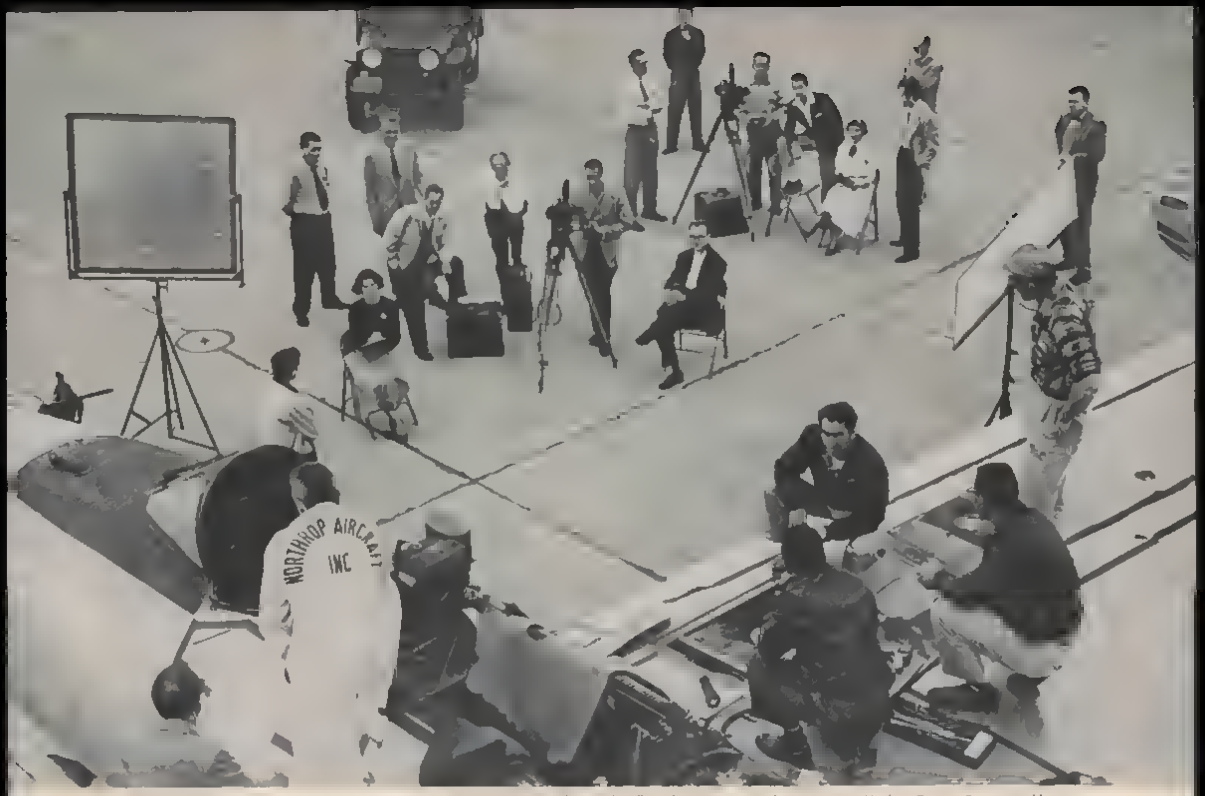
THE [illegible] OF MOTION PICTURE PHOTOGRAPHY

This Issue ...

- [illegible] Emphasis [illegible] Cinematography
- Preparation of Short Technical Film
- The Drama of Color in Cinematography

25c

FOREIGN 35



Manufacturer's Twenty Member Motion Picture Unit sets up to shoot Northrop F-89D all-weather jet interceptor for sequences in Northrop Training Department film

INDUSTRY'S USE OF 16MM CAMERAS BROADENS

Northrop Aircraft Demanstrates Expanded Industrial Use of Mitchell Cameras

Over 100,000 feet of film were shot last year by two 16mm Mitchell cameras operated by a full-scale motion picture unit at Northrop Aircraft. Operating daily throughout the year, these 16mm cameras provide impressive evidence of the rising role of professional motion picture equipment in American Industry today

Northrop, a leader in airframe and missile manufacture, makes diversified use of their Mitchell cameras Motion pictures range from employee activities to engineering test films—where re-shooting is impossible and where steady, accurately framed film of superior quality is consistently delivered by Mitchell cameras

No other single camera is today used by American Industry for such a broad range of filming requirements as is the Mitchell camera Easy operating Mitchell cameras help create sales, meet delivery schedules, and systematize and accelerate research and development. For details about Mitchell equipment that will meet your specific needs, write today on your letterhead

Alaska Bound test pilot Bob Love and Columnist Marvin Miles being filmed by Mitchell camera for Northrop Public Relations Department

For Quality Control Film, Mitchell camera moves in for close shots of Scorpion F-89D

104 Rocket Salvo of twin-jet F-89D is captured on 16mm Engineering Test film

Mitchell Camera
CORPORATION
855 WEST HARVARD STREET
GLENDALE 4 CALIFORNIA
Cable Address: 'MITCAMCO'

***85% of professional motion pictures shown in theatres throughout the world are filmed with a Mitchell**

PROFESSIONAL JUNIOR

-MOST *imitated* tripod in the world!

They've been standing on their heads, trying to copy PROFESSIONAL JUNIOR Tripod—but nobody can get around our exclusive patented features.

Features which make PROFESSIONAL JUNIOR tops in the motion picture, TV and commercial film world. First choice of professional cameramen. First choice of our Armed Forces.

Is your work "dragging" for want of an outstanding tripod? Get PROFESSIONAL JUNIOR— *the price hasn't changed in 15 years.* Get it today.

Professional Junior
GEARED HEAD
interchangeable with Friction Head on same tripod

New Professional Junior Adjustable wood
BABY TRIPOD
—for friction and geared Heads.
Has substantial shoe and spur.
Measures from floor to flange 25" extended—17" collapsed.

FRANK C. ZUCKER
CAMERA EQUIPMENT CO.
Dept. A-12-2 • 1600 Broadway • New York City

AMERICAN

Cinematographer

THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY
PUBLICATION OF THE AMERICAN SOCIETY OF CINEMATOGRAPHERS

ARTHUR E. GAVIN, *Editor*
MARION HUTCHINS, *Editorial Assistant* EMERY HUSE, *Technical Editor*
EDITORIAL ADVISORY BOARD: John Arnold, Arthur Edeson, Lee Garmes, Charles Rosher, Leon Shamroy, Fred Gage, Glenn R. Kershner

Editorial and Business Office: 1782 N. Orange Dr., Hollywood 28, Calif.
Telephone: HOllywood 7-2135

VOL. 37 FEBRUARY • 1956 NO. 2

In This Issue

ARTICLES

PICTORIAL EMPHASIS IN CINEMATOGRAPHY—*By Arthur Rowen* 86
SHOOTING WITHOUT A TRIPOD—*By Frederick Foster* 88
NEW BLIMP FOR THE CAMERETTE—*By Leigh Allen* 90
SHAKESPEARE IN VISTAVISION—*By Harold Benson* 94
PREPARING THE SCRIPT—*By Charles Loring* 96
THE PREPARATION OF SHORT TECHNICAL FILMS—*By K. H. Barney* 98

AMATEUR CINEMATOGRAPHY

THE DRAMA OF COLOR IN CINEMATOGRAPHY—*By Nadine Pizzo* 100
COINCIDENT SOUND FOR HOME MOVIES—*By James N. Whitaker* 103

FEATURES

WHAT'S NEW IN EQUIPMENT, ACCESSORIES, SERVICES 68
YOUR QUESTIONS ANSWERED BY JACKSON J. ROSE, A.S.C. 72
HOLLYWOOD BULLETIN BOARD 76
INDUSTRY NEWS 82
ROSTER OF AMERICAN SOCIETY OF CINEMATOGRAPHERS 104
HOLLYWOOD STUDIO PRODUCTION 114
BOOKLETS, CATALOGS AND BROCHURES 120

ON THE COVER

TAKING ADVANTAGE of the unique lighting of slanting rays from late afternoon sun, a Warner Brothers' camera crew shoots a scene for "Spirit of St. Louis," featuring Jimmy Stewart (in hammock) as Charles Lindbergh. Robert Burks, ASC, (not shown) directed the photography.—*Photo by MacJulian.*

AMERICAN CINEMATOGRAPHER, established 1920, is published monthly by the A. S. C. Agency, Inc., 1782 N. Orange Dr., Hollywood 28, Calif. Entered as second class matter Nov. 18, 1937, at the postoffice at Los Angeles, Calif., under act of March 3, 1879. SUBSCRIPTIONS: United States and Canada, $3.00 per year; Foreign, including Pan-American Union, $4.00 per year. Single copies 25 cents; back numbers 30 cents; foreign single copies, 35 cents; back numbers, 40 cents. Advertising rates on application. Copyright 1956 by A. S. C. Agency, Inc.

*Based on recent ARB Audience Composition Studies of Network Situation Comedies.

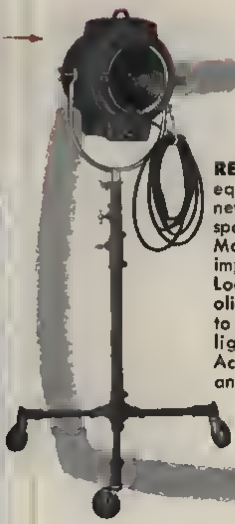
1.	I Love Lucy	44.8
2.	Honeymooners	34.2
3.	December Bride	32.7
4.	Our Miss Brooks	29.3
5.	Burns & Allen	28.5
6.	Life of Riley	26.2
7.	Make Room For Daddy	21.9
8.	Bob Cummings	20.9
9.	Meet Millie	20.6
10.	Father Knows Best	19.6

WHY 7 OUT OF THE 10 TOP-RANKING* TV SHOWS IN AMERICA USE

J. G. McAlister

LIGHTING AND PRODUCTION EQUIPMENT

REASON: The new J. G. McAlister Duol Steering Crob Dolly is the ane and anly completely maneuverable camera dolly today. Just introduced, it already ranks amang the five mast valuable technical contributians ta modern film production. It reduces set-up time, enables a director ta intraduce a wider variety af cinematic effects and, at the same time, cut his allatted shaating schedule. For complete details, write for free booklet.



REASON: Only J. G. McAlister equipment embodies *all* that is new today in the lighting field. In spat equipment, for exomple, only McAlister combines these three impartant advantages: (1) Perma-Lock Mirror for pasitive mirror alignment; (2) Lifetime Beam Pilots to guarantee flare-free, spill-proof lighting; (3) Convenient, Easy-Action focus controls both front and rear.

NEW! *Colorful, catalog-brochure, "New Dimensions in Controlled Studio Lighting."*

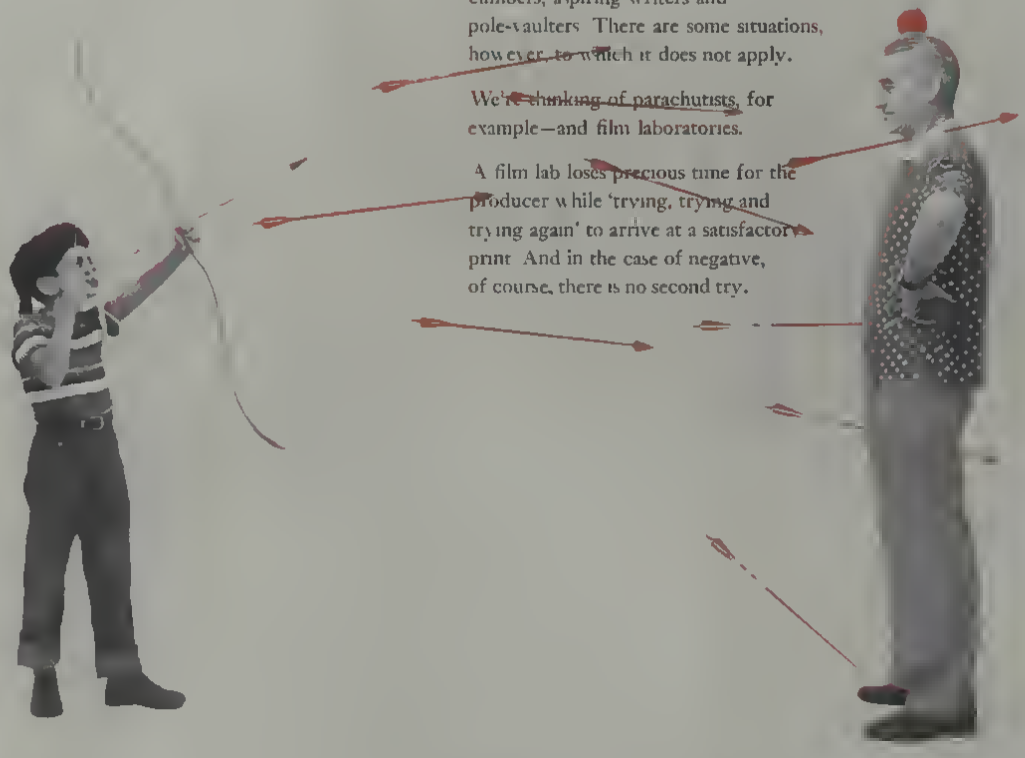
NEW! *16 page booklet describes Crab Dolly operation in detail. For free copies, write today.*

The newest, most advanced lighting and production equipment is made by

J. G. McAlister Inc.
(sales & rentals)

1117 North McCadden Place
Hollywood 38, California

IF AT FIRST YOU DON'T SUCCEED, TRY, TRY, TRY AGAIN . . . *



This is excellent advice for mountain climbers, aspiring writers and pole-vaulters. There are some situations, however, to which it does not apply.

We're thinking of parachutists, for example—and film laboratories.

A film lab loses precious time for the producer while 'trying, trying and trying again' to arrive at a satisfactory print. And in the case of negative, of course, there is no second try.

For parachutists we have no counter-advice. For film producers we recommend the complete 16mm and 35mm services including 16mm color printing offered by—

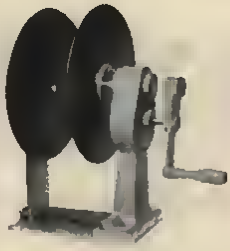
design NAIDICH / photography LEVITT

GENERAL FILM LABORATORIES CORP.

1546 NO. ARGYLE • HOLLYWOOD 28, CALIFORNIA • HO 2-6171

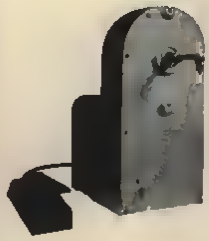
*W. L. HICKSON

hand rewind



negative rewind set

differential rewind



power rewind

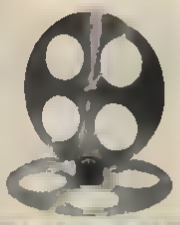
precision film editing equipment

HOLLYWOOD FILM COMPANY

HO 2-3284
956 NO SEWARD ST.
HOLLYWOOD 38
CALIFORNIA

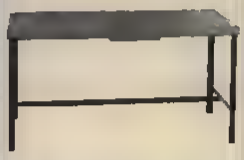
synchronizer

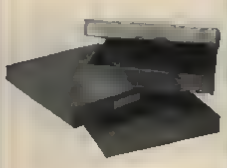
split reels



film racks

editing table

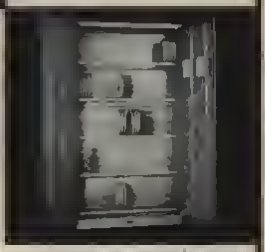




vault cans

swivel base

tightwind



film storage cabinet

at better dealers everywhere

A Collector's Item!

CINEMATOGRAPHIC ANNUAL

PUBLISHED in 1930, a limited number of the original editions of this valuable technical book are available to cinematographers, movie amateurs, schools and public libraries.

600 PAGES OF TECHNICAL ARTICLES

written by some of the highest paid technical talent in the motion picture industry.

No other book ever written contains so much data supplied by the professionals of Hollywood's motion picture studios.

Optical Science of Cinematography, Composition in Motion Pictures, by Dan Clark, A.S.C.; Painting With Light by Victor Milner, A.S.C., Light Filters in Cinematography, by Ned Van Buren, A.S.C., Art in Makeup, by Max Factor, Motion Picture Studio Lighting, Sound Recording, Micro-Cinematographic Apparatus, Useful Facts and Formulae—these are but a few of the subjects covered in this book

A MUST FOR YOUR LIBRARY OF TECHNICAL BOOKS

Printed on fine coated paper, containing hundreds of photographic illustrations and bound in blue leatherette, this book could not be produced today for anywhere near the special price asked

$1.00

Postpaid

MAIL THIS COUPON TODAY!

American Society of Cinematographers
1782 No. Orange Dr.
Hollywood 28, Calif.

Gentlemen: Enclose find $1.00 for which please send me a copy of the CINEMATOGRAPHIC ANNUAL

Name .....

Address .....

City ..... Zone ..... State .....

WHAT'S NEW

. . . in equipment, accessories, service

Fluid-Action Tripod Head

U. D. Photographic Engineering, P. O. Box 25761, Los Angeles 25, Calif., announces a new fluid-action tripod head for use with Cine Special, Pathe "16", Bolex, Arriflex "16", Bell & Howell, and Auricon Cine-Voice cameras. Imported from Australia, where it is well known, its patented principle employs a fluid dampener to make possible the utmost of smooth action in pans and tilts without backlash.

A feature is facility for mounting handle for either left or right hand operation. Head fits either American or European tripod screws. The pan and tilt action which may be done simultaneously, may be locked with a simple set screw. An adapter plate is available having a two way spirit-level for use with Junior "Pro" tripods. Also, a professional heavy duty model is available for use with heavier cameras.

DuPont 70mm Film

The Photo Products Dept. of DuPont announces availability of a number of DuPont motion picture films in perforated (ASA-proposed Type II, MP positive) or unperforated 70mm size. Films now available in this additional size are:

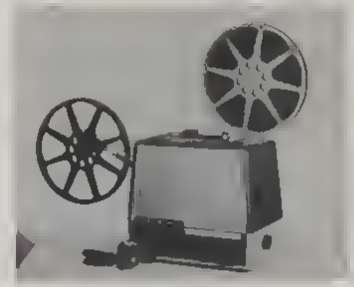
Safety negative films (available in 100 or 1000 ft. lengths): Type 904E. Superior 1 fine grain panchromatic; 908E Fine grain duplicating panchromatic: 926E Superior 2 panchromatic; 927E Superior 3 panchromatic; and 931E high-speed rapid reversal pan.

Safety positive films available in 1000-ft. lengths are: 925E fine grain release, and 828E fine grain master. Also available is safety leader stock in 1350-ft. lengths. Prices and delivery information may be had from any DuPont district office.

Improved Filmosound

Bell & Howell Co., Chicago, Ill., announces a new case and new features have been added to the Filmosound 16mm optical-magnetic recording projector at no increase in price.

New features includes case with acoustically treated aluminum doors, a Neoprene cushioned handle for carrying comfort, and a smart two-toned grey



finish of scuff resistant spatter enamel. Also an 8-inch speaker replaces the former 6-inch speaker. Other improvements include a rack-and-pinion type tilt and longer pressure plates to hold the loop with "green" or new film.

New model, known as 302-C, replaces the old model 202 and retails for $719.00.

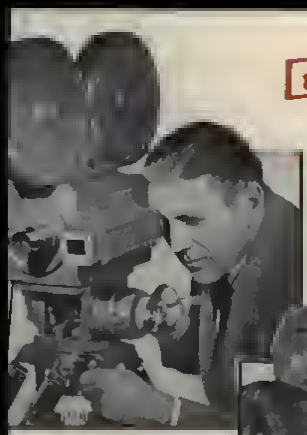
16mm Film Processor

Milford Film Machine, Milford, Conn., announces a new small compact reversal and negative-positive 16mm film processor which features a straight friction drive clutch of exclusive design and a variable-speed motor. Other features include heavy-gauge stainless steel tanks, full daylight operation, and utmost simplicity in operation. Leader length is only 112 feet.

A compact 4 ft. (length) by 2 feet (wide) by 2 feet (high), processor weighs but 200 pounds and lists for $1495.00.

(Continued on Page 70)

Auricon Hollywood



"Auricon Pro-600" with Single-Lens "C" Mount, Tele-Finder Objective, plus Standard Auricon Finder

"Auricon Pro-600" with Critical Ground-Glass Focussing, available on 3-Lens Turret Model.

Preferred by PROFESSIONALS... THE ALL NEW "AURICON PRO-600" for 16mm optical sound-on-film

- Self-blimped for completely quiet studio operation. The whisper-quiet film flow of The "Auricon Pro-600" is silent proof of precision design. Your sound-recording microphone never picks up "Pro-600" Camera noise!
- 600 ft. film Magazines with Auricon-Electromatic Take-up, for 16 minutes of continuous "Talking-Picture" filming
- Synchronous Motor Drive for "Single-System" or "Double-System" Recording.
- $1,497.00 list... for Auricon Pro-600 "Double-System" professional picture-camera with built-in features. Also available at added cost is "Single-System" equipment for Optical Sound-Track-On-Film, "C-mount" Lenses, View-Finders, Film Magazines, 3-Lens Turret, Critical Ground-Glass Focusing, Lens Sun-Shades, Tele-Finders, etc...
- Sold with 30 day money-back guarantee, you must be satisfied!

Write for free illustrated "Auricon Pro-600" literature and price schedule.

Auricon Hollywood

"Auricon Pro-600" features Push-Button "On-Off," with safety interlocked film-flow mechanism.

"Auricon Pro-600" Turret Model with "Zoom" type Lens and Finder in use.

Auricon Hollywood

Auricon Hollywood

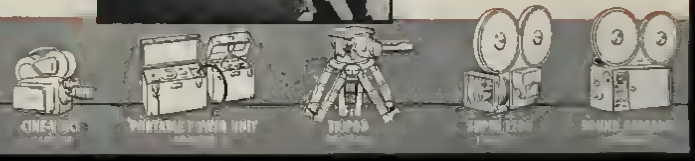
Auricon

A PRODUCT OF

BERNDT-BACH, INC.

6902 Romaine Street, Hollywood 38, California

MANUFACTURERS OF SOUND-ON-FILM RECORDING EQUIPMENT SINCE 1931



QUALITY
is our business
Plus
personalized
service

in
the
East
it's...

MOVIELAB

ROUND-THE-CLOCK SERVICES
Negative Developing
•
First Print Department
•
Ultra Violet and
Flash Patch Printing
•
16mm and 35mm
Release Printing
•
Kodachrome Printing
•
63 Editing Rooms
SPECIAL TV SERVICES

For Color it's
Rainbowlab Inc.

Now
Celebrating
Our 25th
Anniversary

MOVIELAB FILM LABORATORIES, INC.
619 West 54th Street, New York 19, N. Y. JUdson 6-0360

WHAT'S NEW?

(Continued from Page 68)

Hulcher Sequence Cameras

Gordon Enterprises, North Hollywood, Calif., have been named distributors of the well-known Hulcher sequence cameras. The Hulcher 70 press camera makes 5 to 20 pictures per second at exposures of 1/25 to 1/2800 second on 2¼"x2¼" negatives.

A larger high-speed camera designed for Air Force and Navy instrumentation and data recording photography takes up to 50 pictures per second on a 2¼"x5" negative.

Pan Handle Modification

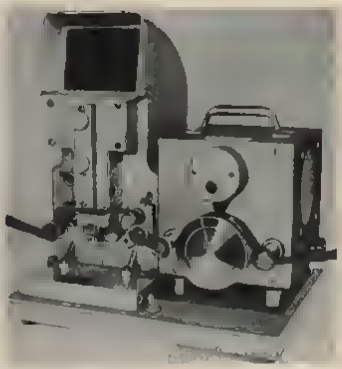
Cinekad Engineering Company 500 West 52nd St., New York offers the Quik-Set joint attachment for the pan-tilt handle of the Professional Junior tripod. With the Quik-Set modification, pan-tilt handle can be adjusted to the required angle most comfortable for the camera operator, and it affords more accurate control of camera movement. Interlocking precision-cast teeth insure rigid position of handle. No tools are required to install.

Reflex Viewer

Filmtronics, Inc., 96 Huntington St., New London, Conn., announces a new reflex viewer for the 4x5 Graphic View and 4x5 Graphic cameras with the Graflok back. Viewer has same silver hammertone finish as the cameras named above. It snaps into place easily and shows the image right side up. List price is $5.95 F.O.B., New London, Conn.

The One-Stop Source Of Supply

Edit Your Film Safely with



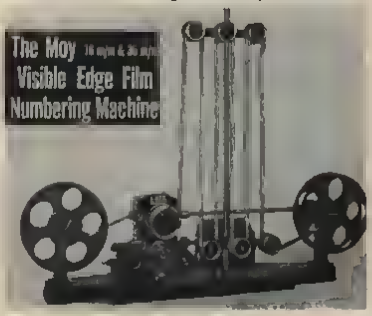
EDIOLA ACTION VIEWER AND SOUND READER

This first low priced professional 16mm Action Viewer projects BIG, CLEAR AERIAL IMAGE, 3"x4"—operates left to right—roller smooth action eliminates film scratching and damage to sprocket holes; built to cue marking device; hum free amplification; synchronized with Precision Sound Readers on Special Base or may be separated for individual use. Write for brochure

Action Viewer, Soend reader and Base	$362 45
S.O.S. Ediola Action Viewer	139 95
Optical Sound Reader	185 00
S.O.S. Ediola Base only	49 50

Film Numbering Pays Off

Unnumbered films cause confusion and loss of time. The MOY edge numbers every foot of 16, 17½, 35mm film and simplifies the task of checking titles, footage



The MOY replaces cue marks, perforations, messy crayons, punches, embossing—does not mutilate film. Work prints showing special effects, fades and dissolves require edge numbering to keep count of frames cut or added. Multiple magnetic tracks in CinemaScope stereophonic recordings make edge numbering a MUST. Write for brochure

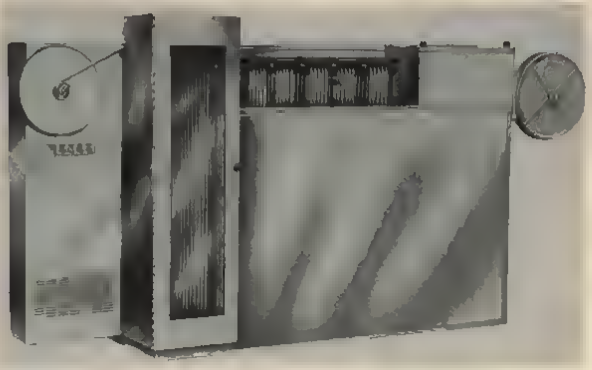
With NEW Improved Non-Clog Inking System $2475

Present Moy owners can easily install the new and improved inking system!

AMONG RECENT PURCHASERS ARE

Eastman Kodak Co., Rochester, N.Y.
General Film Labs., Hollywood, Calif.
Reeves Soundcraft, Springdale, Conn.
Americas Optical (Todd AO) Rusale,
Telelim Inc., Hollywood, Calif.
Consolidated Film Labs., Ft. Lee N.J.
Eagle Labs., Chicago, Ill.
Cinerama Productions New York
Columbia Broadcasting System N.Y.
Louis de Rochemont N.Y.C.

The Profitable All-Purpose Film Processor



BRIDGAMATIC 16mm Automatic Reversal Developing Machine — Ideal for TV Stations, Photo Finishers, Industrial or Documentary Producers, Microfilmers, Small Labs, Universities, etc.

Bridgamatic

REVERSAL DEVELOPING MACHINE

A true one-man lab. No special skill required!

BRIDGAMATIC 'RAPID ACTION' REVERSAL assures quality pictures in minutes—Spot news and sports events can be shown **immediately** after they occur. This is the perfect All-Purpose Processor at a price anyone can afford. Reversal speed 1200 ft. per hour—also does negative and positive film. Light Tight compartment for daylight operation—has 8 stainless steel tanks—completely automatic 'Dry-to-Dry'. Simply plug in and operate!

MODEL RA $2795—Includes basic Bridgamatic features such as overdrive, nylon bearings, air squeegee built-in drybox, blower, heating elements, daylite compartment plus continuously variable speed control, 1200 ft. enclosed magazine, feed-in and take up elevators

TAKE ADVANTAGE OF S.O.S. TIME-PAYMENT PLAN
Trade-ins Accepted. . Send List

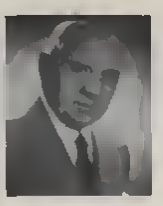
"The Department Store of the Motion Picture Industry"

S.O.S. CINEMA SUPPLY CORP.

602 WEST 52nd ST., NEW YORK 19, N.Y.
Phone: Plaza 7-0440 *Cable:* SOSOUND

S.O.S. EST 1926

WESTERN BRANCH: 6331 Hollywood Boulevard, Hollywood 28, California — *Phone:* HOllywood 7-9202



YOUR QUESTIONS

ANSWERED BY JACKSON J ROSE, A S.C.

QUESTIONS of general interest will be answered in this column. We regret that demands on the editor's time will not permit personal replies—*Ed*

Q I am planning to shoot a documentary in color in the CinemaScope format, using a 35mm Arriflex camera fitted with an anamorphic lens. Is it necessary that I have sprockets of this camera replaced with the new CinemaScope sprockets in order that this picture can be produced for theatrical showing with CinemaScope equipment?—J.H., Dakota.

Not necessarily The negative can be processed in the regular manner, and the prints made on standard CinemaScope print stock which, as you know, has sprocket holes of a different pitch than regular 35mm film

Q Please tell me the difference between "depth of focus" and "depth of field."—A.E.H., Fla.

These two terms are generally misunderstood even by many professional photographers who invariably use the term "depth of focus" when they mean and should say "depth of field" The terms are mixed whenever there is a discussion about extreme depth in photography

To clarify the two terms: *depth of field* is the extent of that zone in the field or scene in which the definition is satisfactorily sharp *Depth of focus* is a technical term relating to the properties of a lens and relates to the ability of a lens to define with satisfactory sharpness upon the negative, the images of objects, situated at varying distances The latter is a fixed condition or quality of a lens, the former—depth of field—may be increased by stopping down the lens diaphragm

Q In producing a commercial film on farm machinery, I would like to employ a simple method of adding clouds to exterior shots.—B.B., Michigan.

The simplest method is to employ the well-known "glass shot" technique in which clouds are either painted on a large panel of glass or photographed and printed on a large size transparency This in turn is mounted in a matte box some 18 inches distant from the camera lens in such a manner that the scene in question is photographed through the glass or photograph transparency.

The clouds in the transparency will be recorded on the camera negative along with the rest of the subject matter and will give the illusion of being part of the scene providing the glass or transparency is properly aligned with respect to the horizon line

Such shots should be made only when there are no other clouds in the sky

Q Can you give us some details about using the traveling matt process in the production of a training film which we are shooting for a local manufacturer. Is equipment for this work available on the market?—M.J.J., Penna.

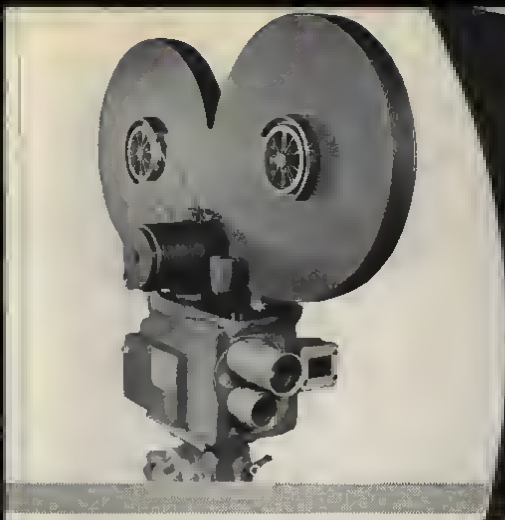
Traveling matt work is a highly technical undertaking for which only the major studios and some large film labs are equipped Unless you have a great deal of this work to do, it would be advisable to "farm it out" or change your script to eliminate the need for traveling matt shots entirely

We do not have available a list of laboratories equipped to offer such service and suggest you inquire of the nearest available film processing laboratory

Q I have an old Bausch & Lomb lens which I plan to have coated This I will use in a turret along with two new Baltar lenses which, of course, are already coated. Will coating the old lens affect its f/ stop rating? I will be using all three lenses interchangeably on the same production.—V.V.M., Ill.

After the lens is coated, it would be advisable to have it checked and recalibrated if necessary, as coating a lens may increase its light transmission as much as 95 per cent This would definitely affect the present f/ stop calibrations. Write Photo Research Corporation, 837 No Cahuenga, Hollywood 38, Calif., for more information on this.

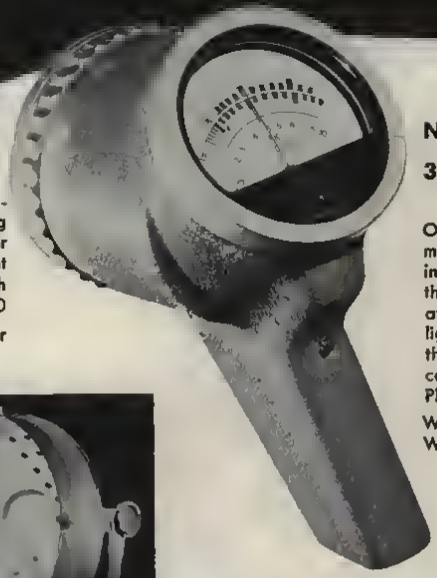
CAMERA EQUIPMENT—
Where the Pros go for the World's Finest TV and Motion Picture Equipment



Conversion of 100 ft.
AURICON CINE VOICE
to 1200 ft. capacity.

des torque motor for magazine takeup. This precision con-
on permits attachment of 400 ft. magazine (11 min. running
or 1200 ft. magazine (33 min. running time). Also provides for
lation of Veeder footage counter. We can convert your present
Voice or supply you with unit already converted for use with
nal magazines. Conversion-less magazines $450.00

ve turret-type Viewfinder with parallax adjustment installed for
additional charge.



New **SPECTRA**
3-color **METER**

Only accurate meter tha
measures *all* light sources
including *daylight*. Measure
the prapartionate amaunt
af all 3 primary calars in th
light saurce, and indicate
the filters needed for positiv
color correction. Praduct o
Photo Research Corporation

With case and strap $305.0
With Kelvin scale $325.0

3-wheel portable
COLLAPSIBLE DOLLY

llustrated with BALANCED TV Head. Also
akes Professional Junior and most stand-
rd tripods. You can't beat it for light-
eight convenience. $300.00

750-2000-5000 Watt
CONE LIGHTS

Most versatile shadowless floodlight you can buy. Used extensively by film studios.

750W-$75. 2000W-$110.
5000W-$175.00 Less stand.

Adjustable Collapsible
ALUMINUM TRIANGLE

Insures rigid positioning of tripod legs. Prevents slipping and damage to floors.

Model C (illustrated) $32.50
Madel 8 (less clamps) $26.50

SALES • SERVICE • RENTALS

9.5mm Lenses in 16mm C maunt. 18.5mm (extreme wide angle-flat field) Lenses available in mounts for all 35 mm Motion Picture Cameras
*PHOTO RESEARCH Color Temperature Meters *Electric Footage Timers
*Neumade and Hollywood Film Campany cutting room equipment
*Griswold & B.&H. Hot Splicers *DOLLIES—Bardwell-McAlister, Mole Richordson, Century and Colortran Lighting Equipment

Complete line of 16mm and 35mm Cameras

FRANK C ZUCKER
CAMERA EQUIPMENT CO.

A 2-23 1600 BROADWAY NEW YORK CITY

BRILLIANT PERFORMANCE

That happy glow (limelight?) in Precision's corner is simply the radiance of a solid reputation for sound, careful and accurate film processing. Watta performer

Precision is the pace-setter in film processing. In the past, Precision fawed techniques to bring the best out of black and white or color originals. In the present, facilities are the profession's very best for any of your processing needs.

And, in the future, Precision will, as usual, be first again (depend on it) with the newest developments to serve you better.

you'll see and hear

PRECISION

FILM LABORATORIES, INC

21 West 46th Street, New York 36, New York

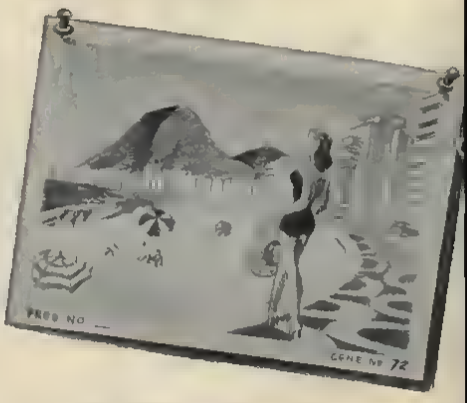
A DIVISION OF J. A. MAURER, INC

In everything, there is one best . . . in film processing, it's Precision

So You Need a Special Shot...

... of a small fry eating an ice cream cone by the Taj Mahal

... or a kitten on the Eiffel Tower



... or a pretty gal on the beach at Rio

... or a herd of long horns in Texas

Now, your most unusual, most difficult, most exacting film requirements — for establishing and native action scenes — can be photographed on assignment in any part of the free world ... promptly, skillfully, economically. Photographics International bas expert cameramen stationed in all of the areas shown below, ready to execute your orders with intelligence and dispatch ... to deliver 16mm black and white or color footage of top professional quality.

The next time your scripts call for sbots in a foreign land or at an obscure location in this country ...

WRITE, WIRE, PHONE OR CABLE

Photographics International

A Division of Raphael G. Wolff Studios, Inc.

5631 HOLLYWOOD BOULEVARD HOLLYWOOD 28, CALIFOUNIA
PHONE. HOLLYWOOD 7-6126 — CAOLE ADDRESS. INTERFOTO

CAMERAMEN IN:

AFRICA
Algeria
Egypt
Ethiopia
French Somaliland
Libya
Morocco
South Africa
South Rhodesia
Tunisia
Union of South Africa

AUSTRALIA
Australia
New Zealand
Tasmania

ASIA
Aden
Ceylon
Formosa
Hong Kong
India
Iran
Israel
Japan
Java
Lebanon
Malaya
Pakistan
Philippines
Syria
Thailand
Turkey
Yemen

CENTRAL AMERICA & WEST INDIES
Bahamas
Barbados
Canal Zone
Costa Rica
Cuba
Dominican Republic
Guatemala
Haiti
Honduras
Jamaica
Nicaragua
Panama
Puerto Rico
Virgin Islands

CENTRAL PACIFIC
Fiji Islands
Guam
Hawaiian Islands

EUROPE
Austria
Cyprus
Denmark
England
Finland
France
Germany
Italy
Ireland
Norway
Portugal
Spain
Sweden
Switzerland

NORTH AMERICA
Alaska
Bermuda
Canada
Iceland
Mexico

SOUTH AMERICA
Argentina
Bolivia
Brazil
Chile
Colombia
Peru
Venezuela

AND ALL AREAS OF THE UNITED STATES

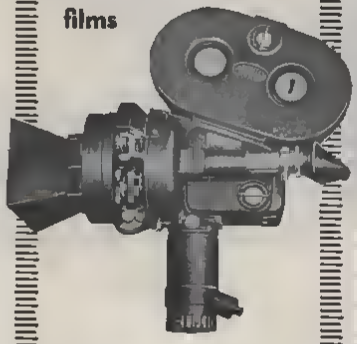
MPLETE LIBRARY OF FOREIGN AND DOMESTIC FILMS ALSO AVAILABLE

ARRIFLEX

New 35 mm Model 2A
With 180° Shutter

A TRULY GREAT CAMERA

for TV, Newsreel and commercial films



For tough and trying assignments, ARRIFLEX 35 is in a class by itself. Reflex focusing through photographing lens while camera is operating—this is just one outstanding ARRIFLEX feature.

Equipped with bright, right-side-up image finder, 6½ x magnification. Solves all parallax problems. 3 lens turret. Variable speed motor built into handle operates from lightweight battery. Tachometer registering from 0 to 50 frames per second. Compact, lightweight for either tripod or hand-held filming. Takes 200' or 400' magazine. Write for free folder.

Blimp now available.
16mm ARRIFLEX also available.

FRANK C. ZUCKER
CAMERA EQUIPMENT CO.
1600 BROADWAY NEW YORK CITY

Hollywood Bulletin Board

BRITISH CINEMATOGRAPHER Jack Hildyard, BSC, (left) while in Hollywood recently, was a visitor to the clubhouse of the American Society of Cinematographers. Here Harry Stradling, ASC, points out some of the Society's directors of photography who have won Academy Awards for photographic achievement. Hildyard has just completed the photography of "Idol" in Mexico for Al Lewin.

Academy Awards for the best achievement in cinematography for 1955 came a step nearer to reality last month when the directors of photography of the Hollywood motion picture studios, in a preliminary balloting, selected ten black-and-white and ten color productions of 1955 as candidate entries for nominations for the annual photographic achievement awards of the Academy of Motion Picture Art and Sciences.

Nominating ballots were subsequently mailed to all directors of photography. The latter will vote to select, from among the preliminary list of 20 productions, five films in each classification as the 1955 award nominees. The balloting will close on Saturday, February 4th, and the results will be announced publicly in a radio-television broadcast from Hollywood February 18.

The twenty candidate productions and the names of their respective directors of photography are:

BLACK AND WHITE

"The Blackboard Jungle," Russell Harlan, ASC (M-G-M).

"The Desperate Hours," Lee Garmes, ASC (Paramount).

"I Am a Camera," Guy Green, BSC, (Romulus British)

"I'll Cry Tomorrow," Arthur Arling, ASC (M-G-M.)

"The Man With the Golden Arm" Sam Leavitt, ASC, (Preminger-U.A.).

"Marty," Joseph LaShelle, ASC, (Hecht-Lancaster-U.A.).

"The Night of the Hunter," Stanley Cortez, ASC, (Paul Gregory-U.A.).

"Queen Bee," Charles Lang, ASC, (Columbia).

"The Rose Tattoo," James Wong Howe, ASC, (Paramount).

"The Wages of Fear." A. Thirard, (Filmsonor, France)

COLOR

"A Man Called Peter," Harold Lipstein, ASC, (20th Cent.-Fox)

"Blood Alley," William Clothier, (Warner Bros.)

"Cinerama Holiday," Joseph Brun, ASC, and Harry Squire, ASC, (De Rochemont).

"East of Eden," Ted McCord, ASC, (Warner Bros.).

"Guys and Dolls," Harry Stradling, ASC, (Goldwyn-M-G-M.)

"Love Is a Many Splendored Thing," Leon Shamroy, ASC (20th Cent.-Fox)

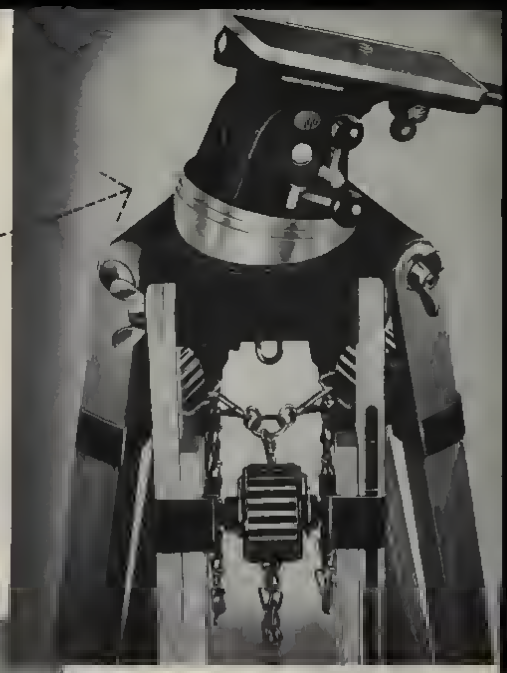
"Oklahoma," Robert Surtees, ASC (Rodgers & Hammerstein)

"Picnic," James Wong Howe, ASC, (Columbia).

"Strategic Air Command," William Daniels, ASC and Tom Tutwiler ASC (Paramount)

"To Catch a Thief," Robert Burks, ASC (Paramount)

The Hemispherical Ball-Joint Head



AN EXCLUSIVE FEATURE OF THE NEW

ARRI 16 TRIPOD

Here's the kind of tripod you'd expect from the moker of the famous Arriflex cameras — a tripod with the most advanced features in the field.

One outstonding Arri-exclusive is the Hemispherical Ball-Joint Heod. No motter how uneven the ground or how tilted the tripod — this heod permits you to level your camera without touching the tripod legs. And a built-in spirit level tells you when you're 'set'.

THE ARRI 16 TRIPOD

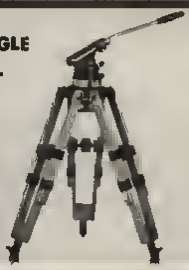
Alsr gives you thrsr important tratures:

- **HEMISPHERICAL BALL-JOINT HEAD** — precision machined boll end-sockel (4½" diom.) perfectly meted for easy adjestment and secure locking actlon.
- **PAN end TILT LOCKS** — each controlled iedependently.
- **ADJUSTABLE PAN HANDLE** — conveniently located for optimum leverage — can be held under armpit leaving hands free to manipulole lenses end camera.
- **SMOOTH PAN end TILT MOVEMENTS** — achieved through precise machining of all metal ports.
- **SPIRIT LEVEL** — for lining up camera.
- **PATENTED TRIPOD SCREW** — Rls both foreign end American tripod sockels. Outside thread section is for loreign cameras. When used with Americon cameras, it retracts, and inner "American thread" engages camera.
- **SINGLE LOCK COLLAR** — securely locks each leg at desired extension and automatically eqaulizes locking pressure on both shanks.
- **CALIBRATED LEG SCALES** — permil quick and easy setting of oll legs to same extension.
- **ADJUSTABLE ANTI-SLIP CHAINS** — restrict leg spreed and prevent lripod frem falling
- **TIE-DOWN EYELETS** — for securing tripod to floor.
- **TIE-DOWN LIPS** — for ottaching to dolly or clamps
- **DUAL SPURS** — double, hordened steel lips essure Rrm, sure footing.
- **CONSTRUCTION** — legs made of seasoned beech for extra streegth and sturdiness. Metal parts are made of brass, steel end aluminum — exposed surfaces finished in black crinkle and chrome. Camera platform is leather-covered.

FOR LOW ANGLE SHOOTING . . .

ARRI 16 SHORTY

Supplied less head. Uses Hemispherical Ball-Joint Head interchongeably with Arri 16 Tripod



SPECIFICATIONS:

	ARRI 16 TRIPOD	ARRI 16 SHORTY
WEIGHT	13½ lbs	R½ lbs less head
WRRKING HEIGHT Maximum	65 inchss	21 inches
Minimum	15 inches	R inches
CLOSER	42 inches	22½ inchss
PRICE	$17R.00 complete	$90.00 less head

NRTE Prices, Weights and Measurements in clude Hesd, except where otherwise stated, end are subject to change

KLING PHOTO CORP

257 Fourth Avenue, New York 10, N.Y
7303 Melrose Ave., Hollywood 46, Cal.

stancil-hoffman S6 system of magnetic film recording lightweight, standard AC or battery operation 16mm or 17.5mm.

we've packaged a major studio into a portable recording system

STANCIL-HOFFMAN

ECONOMICAL At last, a low cost, completely integrated, PROFESSIONAL magnetic film recording system for studio, portable, or mobile use ... designed to accommodate any camera and meet your every quality and film recording requirement

VERSATILE Whatever the power source camera, or utilization, a simple plug-in or interchange of motors is all that's ever required to operate the S6 system. Designed around 24 volt, precisely engineered Air Force approved batteries. Accommodate 110 or 220 volts, 1 or 3 phase, 50 or 60 cycle power input.

QUALITY Engineered by Stancil-Hoffman, manufacturers of equipment used throughout the world by film producers, radio and television stations, the Military and nuclear research laboratories. Find out how the S6 magnetic film recording system for portable and fixed recording can best meet your requirements. Send for specifications now! Credit terms arranged on domestic purchases.

manufacturers of complete recording system

STANCIL-HOFFMAN CORP.

from microphone to release print

921 N. HIGHLAND AVE., HOLLYWOOD 38, CALIF. TEL. HOllywood 4-7461

cable address: **STANHOFF**

representatives.

New York & Eastern Seaboard
Electronics Assoc., Inc
200 5th Street, Stamford, Conn.

East Central Section
Mr. Michael J. Cudahy
5858 Sheridan Rd., Chicago 40, Ill

West Central Section
W. Cozzens
220 Kedzie St., Evanston, Ill

S. W. Caldwell, Ltd.
447 Jarvis Street
Toronto 5, Ontario, Canada

S. O. S. Recording
1545 South Beretania
Honolulu 14, Hawaii

India & Pakistan
Photophone Equipments, Ltd
9, Marine Lines, Bombay, India

Film Briefs

Ideal for 2 camera TV shows is F&B's new pair of BNC Mitchells—each with matched sets of 9 Cooke lenses from 18mm to 150mm. Watch for the new series of "Continental" filmed TV shows on NBC for examples of the film quality possible with these cameras.

★ ★ ★

Colortran lighting equipment continues to grow in popularity with location producers. Color-correct, compact, hi-intensity Colortran units draw so little current that no crew would dare to head for location shooting without them. The encore Colortran lines is on display at F&B's showroom—also catalogs are available on request. A few used kits are also available from time to time.

★ ★ ★

Police agencies, both public and private, have recently discovered the remarkable Nominar 1" f/0.95 lens—"The fastest lens in the world." This lens records on film anything that can be seen with the naked eye. It certainly is not difficult to imagine the many ways that the Nominar can be used in police work.

★ ★ ★

Some new items recently designed and built in F&B's new machine shop are—

1. Installation and Conversion of slide film projectors for double frame movie drive.
2. Lens extension tube adjustable for Eyemo & Mitchell mounts.
3. Mounting & installation of Bellowscope in Debrie camera.
4. Custom built lens extension tubes.

★ ★ ★

We were handsomely complimented recently by Arthur Mudell Productions' Mort Sunnerman, as he recalled that using F&B rental cameras on 79 half hour Dione Lucas Cooking Shows without a single breakdown—or loss of a single hour—due to malfunction of equipment. Which only goes to show that a young outfit like us can't afford to relax our vigilance as regards rental equipment maintenance. With brand new equipment, top maintenance personnel, scrupulous checking and rechecking of equipment plus the F&B ingredient known as TLC*—our rental service is seconds to none.

★ ★ ★

We thought that all of our customers had received the little F&B Xmas gift of a set of cuff-links engraved with Mitchell cameras. If we inadvertently failed to send yours, due to a change of address or just a clerical error here, please call or write and ask for it. There are a few sets left—so hurry!

*Tender Loving Care

F & B NOMINAR 1" f/0.95

"THE FASTEST CINE LENS IN THE WORLD"

In 16mm "C" mount for all 16mm cameras

8mm adapter available

1. More than twice as fast as f/1.4
2. Shoot TRI-X with only 3 FC of light
3. Shoot Kodachrome with 150 FC

Check these features:

- Nine coated, color corrected optical elements
- Engraved depth of field scale
- Click stop diaphragm
- Chrome plated brass lens mount

Price $165

$9.90 Federal Excise Tax

Includes

Series VI fitted holder, sunshade
Screw-on dust covers
Handsome leather carrying case

Write for brochure

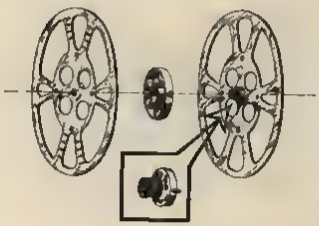
SALE!! 6 USED NOMINAR 1" f/0.95

Used for demonstration only

SALE PRICE, Lens & Case—$119.50

F & B SPLIT REELS

NOW — ON CORES
PROJECT
EDIT
INSPECT
SYNCHRONIZE
CLEAN
MEASURE
WITHOUT REWINDING



Eliminate FLANGES & risky TIGHTWINDS

EASY TO USE!

1. Simply open split reel
2. Slip in film on core
3. Close split reel, and use

400 ft.	SPLIT REEL	$4.00
800 ft.	SPLIT REEL	6.00
1200 ft.	SPLIT REEL	7.50
1600 ft.	SPLIT REEL	9.00

IMMEDIATE DELIVERY

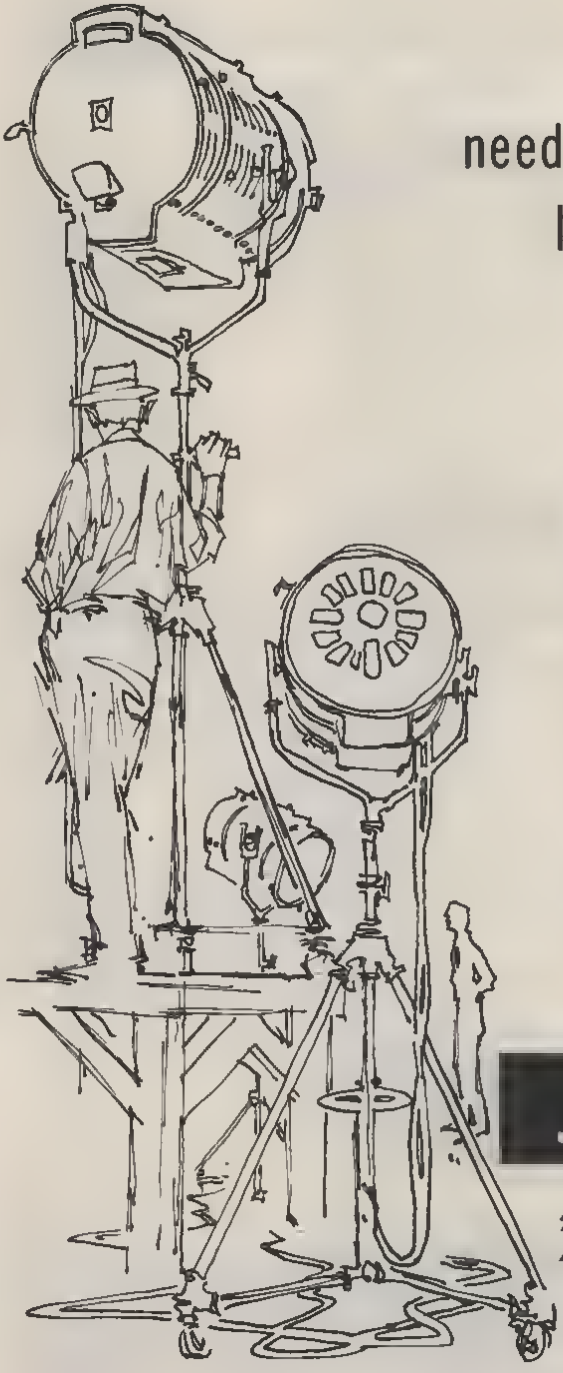
F&B

FLORMAN & BABB

68 West 45th Street, New York 36, N. Y.

Phone: Murray Hill 2-2928

Cable Address — FLORBABB, N.Y.



need location lighting...fast?

Call an Jack Frost, one of the nation's largest suppliers of temporary lighting facilities.

Wherever you are, whatever your lighting needs, you can depend on Jack Frost's expert handling and camplete range af equipment, from a 100 watt inkie to 225 amp arc with mabile power plants. In the studio too, we can supplement your present equipment to meet any situation, onywhere. We've been daing it far years for mony of the tap shaws.

Our service includes complete installation and removal at one low cost.

free estimates

Write or wire for a free estimate and a Free Catalag af Equipment.

JACK A. FROST

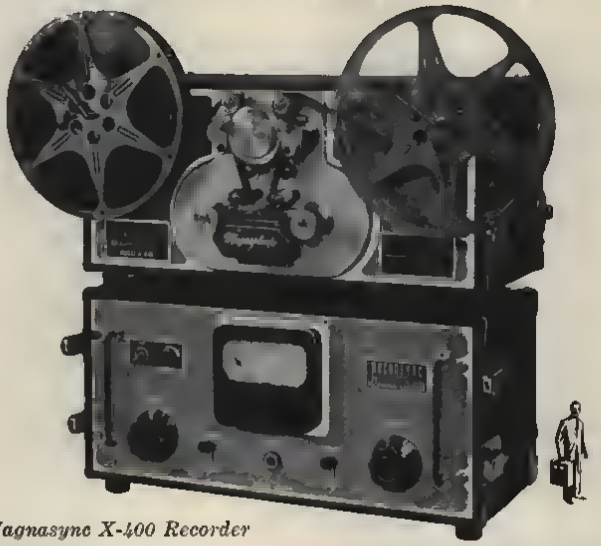
Dept. AMCI

234 Piquette Ave., Detroit 2, Michigan

425 Burnomthorpe Rood, Toronto TB, Ontario

a complete

27-lb. sound system!



Magnasync X-400 Recorder

Producer Net Price **$895.00**
F.O.B. North Hollywood, Calif.

FEATURING...

- High gain "long-shot" microphone channel.
- Dialog equalization for "speech-music" selection.
- Self-contained playback system for "film-direct" monitor.
- Famous Magnasync "Synkinetic" precision film transport.
- High speed rewind, sync speed reverse and fast forward.
- Convenient arrangement for "sync marking."
- Footage counter, extended capacity arms, "quick-detach" mount for special motors, projector cable interlocks and many other compatible accessories to help increase production efficiency.
- Unconditionally guaranteed specifications.

send for complete specifications and delivery schedule.

INTERNATIONAL LEADERS IN THE DESIGN AND MANUFACTURE OF QUALITY MAGNETIC FILM RECORDING DEVICES

MAGNASYNC MANUFACTURING CO., Ltd., 5546 Satsuma Ave., North Hollywood 1, Calif.

MAGNASYNC
Magnaphonic SOUND SYSTEM

DEALERS

NEW YORK—Camera Equipment Co., 1600 Broadway, New York 19 JUdson 6-1420 Cable Address CINEQUIP

CHICAGO—Zenith Cinema Service, Inc., 3252 Foster Ave., Chicago 25, Ill. IRving 8-2104

SAN FRANCISCO—Brooks Camera Co., 45 Kearney St., San Francisco Calif EXbrook 2-7348

CANADA—Alex L. Clark, Ltd., 3745 Bloor St., Toronto 18, Ontario BElmont 1-3303.

ONE CAMERA

16mm or 35mm

in 10 SECONDS!

Camerette 16/35

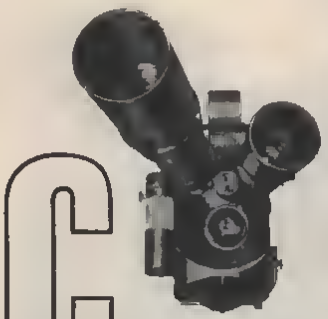
Reflex Motion Picture Camera

The perfect camera for the motion picture film maker working in both 16mm or 35mm color or black and white.

LOOK AT THESE ADVANTAGES—

- The same lenses, same motor drives, same sound blimp and accessory equipment used for both 16mm or 35mm — to convert simply change the magazine
- Precise rugged movement
- Reflex viewing
- 200 degree adjustable shutter
- Divergent three lens turret
- Automatic film gate 400' magazines 16 or 35mm — the 16mm magazine will accommodate daylight spools as well as standard core load
- Light weight — only 14 pounds with 3 lenses 400' magazine and 6/8 volt motor.

Write for brochure



Camerette

patents coutant mathot

Manufactured by Ets. Cina, Eclair, Paris

FRANK C. ZUCKER

CAMERA EQUIPMENT CO.

600 BROADWAY NEW YORK CITY

INDUSTRY NEWS

Newsreel in color—Plans for the first extensive use of color film for TV "spot news" coverage is announced by NBC's "News Caravan." According to NBC executives, availability of the new high-speed 16mm Anscochrome (daylight) motion picture film made it feasible to start tests and plan production for "today's color news film today"—color coverage of news events for network use on the same day.

"News Caravan" has also tested the Anscochrome tungsten film (which will not be generally available for some time) and showed the results at a recent conference of radio and TV editors in Denver. The point made with the showing was this: Until now general spot news coverage in color was not practical because the films available were not fast enough for conditions other than good daylight, and processing generally took days, instead of hours, as needed for "same day" coverage.

• • •

A new idea in motion picture sound stages will become a reality soon when Academy Films of Hollywood, California, begins construction on a new 60' by 100' structure to be located at 800 North Seward Street, in the film capital.

Incorporated will be several innovations in sound stage design said to result in faster production, streamlined operation, and a more modern approach to making motion pictures.

Among these will be concrete floor slabs and "tilt-up" concrete walls with a second inner wall for highly improved sound insulation. A special grid will be cast into the concrete floor and will be utilized to tie down motion picture sets without the use of nails. Another reason for use of concrete for floors is the elimination of "squeaks" when dollies and tracks are used.

Some of the stage space will be available for rental to producers of theatrical, industrial and television films.

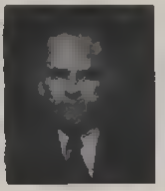
• • •

Sam Browning, vice-president of The Camera Mart, Inc., New York, N. Y., died on January 4, at the age of 54 years. Originally a motion picture photographer, he was a member of Local 644 of the IATSE. He established the machine shop at Camera Mart and directed the manufacture of the many products which bear the company's name.

Active management of the corporation is being continued by his brother, Irving Browning, president, and Samuel Hyman, general manager.

• • •

Capital Film Laboratories, Washington, D. C., has announced the appointment on January 16, of Garland C. Misener as Director of Laboratory Operations.



Garland Misener

Misener, well-known for his technical work in the film industry, comes to Capital from Ansco, where he served as manager of Professional Motion Picture Service. Previously, Misener was attached to Ansco's Hollywood office and assisted in the introduction of Ansco Color film to the industry. He won an Academy technical award for his contribution to the design of the color print scene tester, now widely used in the motion picture industry. He is an Associate Member of the American Society of Cinematographers.

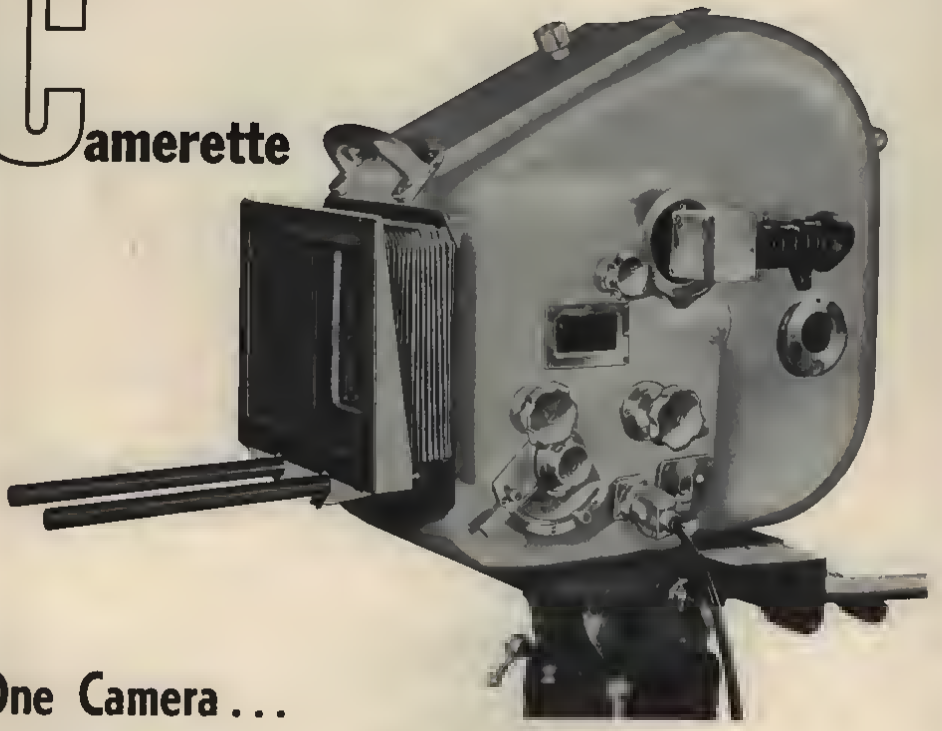
• • •

The fire protection laboratories of the National Bureau of Standards have completed an extensive study of growth of fires and means for their control in storage vaults for combustible nitrocellulose motion picture films. Tests results indicate that through the proper use of sprinklers and film storage racks, it may be possible to limit film loss to the single roll where the fire starts. In this study, the amount of film stored, vent area of the storage vault, sprinkler systems, film cans, types of storage racks, and other variables were investigated for their effects on the amount of film destroyed by the fire and on the gas pressure developed in the vault.

Results show the relative effectiveness of various safety devices in minimizing fire loss and danger to surrounding property. The study was undertaken for the National Archives and for the Inter-Agency Advisory Committee for Nitrate Film Vault Tests, an organization made up of representatives from both Government and private industry.

Summary Technical Report No. 1973 giving full particulars on the tests may be had by writing National Bureau of Standards, U. S. Dept. of Commerce, Washington 25, D. C.

Camerette



One Camera . . .
One Blimp . . .
For Both 16mm and 35mm Cinematography

- Reflex viewing through taking lens at all times.
- External Follow-focus control.
- External iris control.
- Accommodates 18.5mm through 100mm objectives.
- Quick-change magazines and lenses; retractable camera carriage.
- 110-V single-phase and 220-V 3-phase synchronous motors.
- Lightweight magnesium alloy construction.
- Completely soundproof.

Available For Immediate Delivery

BENJAMIN BERG COMPANY

1416 N. VAN NESS AVE. • HOLLYWOOD 28, CALIF. • HOllywood 2-0871

LET CAPITAL UNMASK THAT HIDDEN BEAUTY

Capital will supplement yaur own creative work with its impeccoble editing, RCA recording, music ond norration to help reveol the true beauties of yaur picture. Then, the climox—PRINTS BY CAPITAL—to preserve ond disploy thot beouty forever!

capital

Alwoys Specify

PRINTS BY CAPITAL

FILM LABORATORIES, INC.

1905 Fairview Avenue, S.E.,
Washingtan 2, D.C.

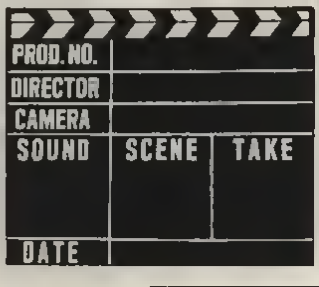
We'd like to know you better in 1956

LET'S GET ACQUAINTED!

REGEL LIGHT MODEL 600

REGEL LIGHTS NOW IN KITS!
Dynamic high power lighting equipment, sturdy steel construction:
Model 600, two six bulb heads with stands, converters, cases $255.00
Model 400, two four bulb heads with stands, converters, cases $200.00

CAMERA MART SLATE and CLAPSTICK
Large professional model contains space for all essential information for production . . . Still the best buy yet at $4.75



PRODUCTION EQUIPMENT

AURICON Super-1200 camera, 2-1200' mags, variable density galvo, matching amplifier and accessories, auto-parallax finder, built in dissolve, tripod, camera case, magazine case, demonstrator, special — $4,450.00

AURICON Pro 200 camera, variable area galvo, auto parallax finder, less amplifier, like new, special — $995.00

ARRIFLEX 16mm reflex camera, S v. meter, sunshade, 16, 25, 50mm Schneider lenses, 2-400' mags, case, immediate delivery, priced at — $2,769.00

BERNOT-MAURER camera, prismatic rackover, 1-400' mag, sync meter, sunshade, finder, 15, 25, 50mm lenses, case, excellent condition — $1,995.00

CINE-SPECIAL II, Maier finder, Par dual power reflex magnifier, Yolo dissolve, 100' chamber, sunshade, case, 15, 25, 63mm Ekter lenses, special — $1,275.00

B&H Filmo, model A, 1"f3.5 lens — $49.50

MITCHELL Standard 35mm camera, 2-1000' mags, wild mater, 40, 50, 75mm Astro f2.3 lenses, sunshade, finder, standard tripod and baby, all cases, excellent condition $4,900.00

CINEPHON 35mm reflex camera, 2-200' mags, forward & reverse meter, 32, 50, 75mm lenses, special — $650.00

ARRIFLEX 35mm reflex camera, model II, 2-200' mags, mater, sunshade, 28, 50, 75mm Schneider lenses, case, demonstrator — $1,595.00

ARRIFLEX model II, 2-200' mags, meter, sunshade, 35, 50, 85mm Zeiss lenses, case, exceptionally fine condition — $1,195.00

ARRIFLEX hinge and sync meter for the 35mm camera demonstrator — $1,575.00

EYEMO 71Q camera, like new, 2-400' mags, 12 v meter, 25, 50, 100mm lenses, tripod, case, special — $1,595.00

CINEFLEX 35mm reflex camera, 2-200' mags, meter, 35mm Apogar f2.3, 75mm Baltar f2.3, 6" Gaerz f4.5 lenses, case — $650.00

CINEFLEX 35mm reflex camera, 2-200' mags, meter, 35mm Apogar f2.3, 50mm Baltar f2.3, 6" Ilex f3.5 lenses, case, excellent — $750.00

MOVIOLA 35mm silent picture on 3" magnifying viewer, separate 35mm optical sound, amplifier, speaker, cabinet, excellent $995.00

MOVIOLA 16mm silent picture on 3" magnifying viewer, excellent — $245.00

S&H Exchange model 35mm electric splicer, pedestal type, very fine condition — $625.00

RRH 35mm model D Printer, five way aperture, 500 watt color lamphouse — $1,900.00

Patent Pending

CAMERA MART TIGHTWIND ADAPTER
An advanced method of rewinding film on cores eliminating scratches and abraeions and will wind the film smooth, tight, and even. Fits all 16mm and 35mm standard rewinds.
PRICE: $29.00
Money Back Guarantee!

CAMERA MART CAR-TOP CLAMPS
Insure the steadiness of your motion picture or TV camera when atop a station wagon platform. Solid bronze, weatherproof construction.
Set of three — $28.00

THE CAMERA • MART INC

1845 BROADWAY at 60th ST.
NEW YORK 23, NEW YORK

PHONE: Circle 6-0930
CABLE: CAMERAMART

A STYLIZED pattern of photography was deliberately planned to give the utmost in pictorial emphasis to M-G-M's "Tribute to a Bad Man," starring James Cagney and Irene Papas. Here director of photography Robert Surtees, A.S.C., (left) watches as his camera crew records a scene on location. Miss Papas and assistant director Arvin Griffin are among interested onlookers.

Pictorial Emphasis In Cinematography

The ultimate in this art is displayed in the fine color photography of MGM'S "Tribute to a Bad Man."

By ARTHUR ROWAN

ONE OF THE REWARDING things about seeing "Tribute to a Bad Man" unfold on the screen is the way pictorial emphasis has been made a salient part of this production. Too often photography is considered by a producer simply as the means of putting a story on the screen, and no more. Invariably, much of a story's value is lost when advantage is not taken to utilize all the pictorial possibilities of the story locale, period and characterizations to underscore its authenticity.

Not every producer, nor director for that matter, appreciates this very vital factor in motion picture production. Sometimes it will creep into a motion picture by virtue of the unusual locale or location in which the exteriors are filmed. This is why many productions shot away from Hollywood or on foreign locations have been so well received by American movie audiences.

But photographing a picture on a foreign or remote domestic location is not always enough. For unless deliberate advantage is taken of the unusual pictorial aspects—utilizing them fully in photographic composition—much in the way of pictorial emphasis is lost to the production.

Then there are the pictorial advantages that come from photographing a

production with an eye toward historical authenticity in the decor, furnishings, textures and costumes This obviously must have its beginning at the time the production is being planned

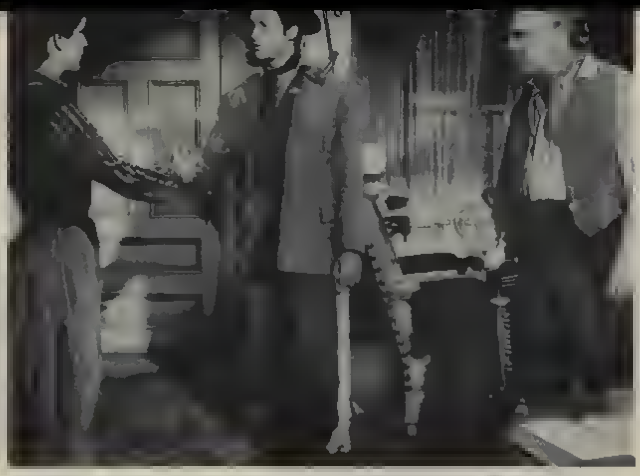
It is this accomplishment that underlines M-G-M's "Tribute to a Bad Man" Pictorial emphasis is evident in every scene, yet it never intrudes upon the fine story nor the action. Very subtly it is flavoring the story with a delicate warmth as it unfolds It is having a compelling effect on you as you watch the screen You note the meticulous care that has been given to the costuming, to the textures of the materials that went into the construction of the many interior sets, definitely identifying them with the period of the story. And most of all, you note how skillfully director of photography Robert Surtees, A.S.C., lit his scenes and photographed them in CinemaScope and color so that the many fine atmospheric details do not become lost to the audience

At the time the picture was being planned, this accomplishment was not thought of in terms of "pictorial emphasis" It so happened that director Robert Wise, art director Cedric Gibbons and Paul Groesse, and director of photography Robert Surtees had a kindred feeling about letting the pictorial aspect of the period play an important part in set and scene compositions

The story is laid in a mountain fastness in the great western wilderness of America around 1870 To impart a true feeling of ruggedness to the story without losing any of the natural pictorial beauty of the locale, Surtees stylized the photography to accent set and locale details through lighting, camera movement and choice of lenses

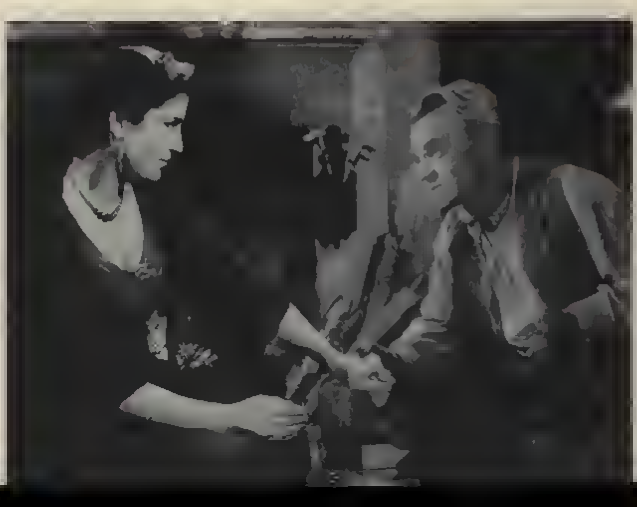
For pictorial reference, both the art department and Surtees made a study of the volume, "Picture Maker of the Old West—William H. Jackson," published by Scribners Jackson was to the Old West what Matthew Brady was to the Civil War—a meticulous photographic chronicler of events and people of the times. His many photographs served to supply details for the construction of such pieces as a hitching post, water trough, and the doors, interior walls, and windows of structures typical of the period For Surtees, the photos supplied ideas for lighting and composition, for pointing up the photography to complement a characterization or lend greater authenticity to an interior set.

(Continued on Page 109)



NOTE HOW the lighting in this scene does two important things very effectively 1)directs attention to faces of the three players, Irene Papas, Don Dubbins, and James Cagney, and 2) subtly points up the period decor of the set, lending pictorial emphasis to the scene

NOTE HERE how the wall behind players is deliberately highlighted to bring out the texture, yet without detracting from the players



ROBERT SURTEES' stylized lighting places emphasis on Irene Papas in this scene while the lighting on James Cagney is deliberately subdued The background, meanwhile, comes in for a subtle measure of illumination

SURFBOARD RIDERS at Waikiki furnished a challenge to camera Ed McGlone and Ted Cate, producers of "Here is Hawaii," for United Air Lines.

CAMERAMAN Ed McGlone shooting surf-riders at Waikiki with his Arriflex "16" mounted on special body brace designed for the purpose. Directing the action is Ted Cate.

Shooting Without A Tripod

Unique camera brace developed by Cate & McGlone for photographing aerial and surfboard shots for tourist film on Hawaii for United Air Lines

By FREDERICK FOSTER

ANY CINEMATOGRAPHER knows that a steady camera is essential to professional motion picture photography. With the average studio assignment, this is rarely a problem. But take the documentary, newsreel or industrial film cameraman. Invariably his are the more rugged assignments calling for anything from shooting from a moving plane while hanging by his feet to making action shots while riding a pair of water skis.

Ed McGlone—the cameraman partner of Cate & McGlone, Hollywood industrial film producers—is a camerman who has had experiences such as these. But he differs from some of his contemporaries in that he usually comes up with an invention of some sort to solve the problem of unsteady camera or camera handling under unusual circumstances.

His latest is a unique combination shoulder-pod and camera mount that serves a dual purpose when shooting must be done without tripod: it makes it possible to secure the utmost stability in the camera, and it offers a measure of protection for the camera from damage in event camerman is thrown off balance when shooting from a roughly-moving conveyance. McGlone got this idea after his camera was wrecked when he was thrown heavily to the floor of a plane while shooting without a tripod or brace of any kind.

The new apparatus, pictured here, was developed after Cate & McGlone were commissioned by United Air Lines to produce a 16mm color and sound film on Hawaii. Plans called for photographing much of colorful Hawaii from a plane, and also shooting a sequence of surfboard riding at Waikiki from a native outrigger canoe. The element of danger was present in both undertakings, and with his earlier experiences to draw upon, Ed McGlone set to work designing the protective camera support which he is shown using in the accompanying photos.

Actually, "shoulder-pod" is something of a misnomer for the gadget. "Belt-a-pod"—already a patented trade name—

is a more apt description; for, as may be seen in the photos, the bracing fits around the waist, then extends upward to a platform. Here, on an adjustable tripod head, the camera is mounted. (McGlone uses either a Cine Kodak Special or a 16mm Arriflex.) On the right hand side is a skeleton framework of tubular aluminum, which has a two-fold purpose: (1) to protect the camera against injury in case it is dropped or comes in contact with any solid, destructive surface while in use, and (2) to provide additional steadiness of the camera when the forward end is held against a tree or wall, as shown in Fig. 1. A handle extending from the base provides a solid grip on the camera and permits the operator to tilt or pan as desired.

Entire construction is of tubular aluminum. The body bracing members are covered with sponge rubber, which in turn is sheathed in leather; the upper framework protecting the camera is made of aluminum tubes of smaller size.

An additional function of the apparatus is to provide support for the camera when not in use; the camera is laid on its right side with the metal framework supporting it. There is appropriate bracing with rubber insulation where the tubing contacts the camera.

The brace was particularly helpful to McGlone while shooting the sequence of shots of the coastlines of the five major Hawaiian islands. Because it was necessary for the plane they were using to fly at low altitude, the air currents at the lower levels made it extremely rough going at times. The same was true when McGlone shot similar footage from a helicopter.

But the real test came when Cate and McGlone set out in an outrigger canoe to film the world-famous surfboarding scenes at Waikiki beach. Working in close in the surf meant the outrigger would pitch and toss, making it difficult to hold a camera steady. But with the body brace in use, and letting his body swing with the motion of the outrigger, McGlone had no difficulty in getting reasonably steady action shots of the surfriders. Without the camera brace, he says, it would have been impossible and likely would have resulted in losing the camera overboard.

The production, tentatively titled "Here is Hawaii," will, when completed, screen for 29 minutes and will bring to audiences color scenes of the important places to visit in Hawaii today. Idea, of course, is to kindle an urge to visit Hawaii, and especially to fly there and back via United Air Lines' luxury air liners which daily fly an estimated 264 passengers to Honolulu from the West Coast.

"Here is Hawaii" is the second major production by Cate & McGlone for United Air Lines. Their first, "Highway to Hawaii" has been screened before an estimated 25 million persons to date. More than 600 prints have been made and put to use.

For the current production, Cate & McGlone are shooting both Commercial Kodachrome and regular Kodochrome. "Each emulsion fills a specific need," says McGlone. "We use regular Kodachrome whenever we can because it has the greater resolving power that gives us the detail we desire in long shots." UV filters are invariably used with both emulsions, especially for long shots and aerials.

One of the big problems encountered on this production was the unusual

(Continued on Page 119)

FIG. 1—DETAILS of body-braced camera support are shown here. Note how protective framework at right of camera is being used here to steady camera against tree. Panning and tilting is by means of handgrip in foreground.

FIG. 2—SHOWING opposite side of the camera support. Entire construction is of lightweight aluminum tubing. Note battery pack for camera motor on shoulder harness.

SHOOTING scenes of surfboard riders from an outrigger canoe. Here, use of camera brace made steady pictures relatively simple to achieve.

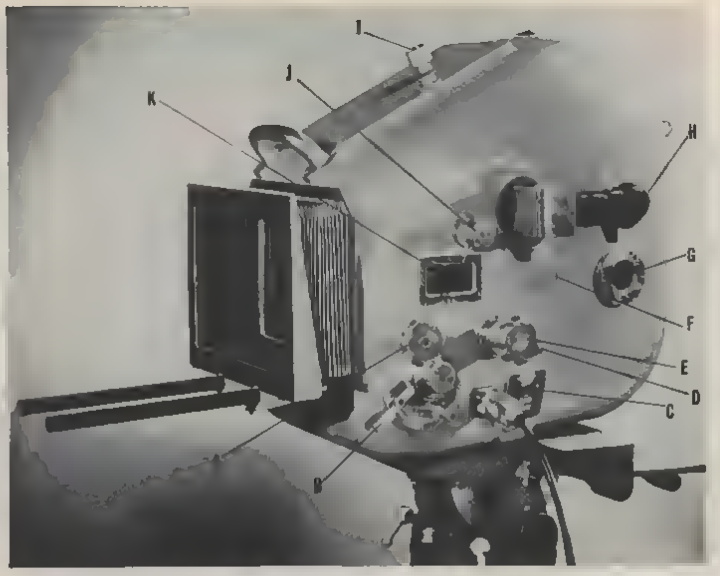


Fig 1—CAMEBLIMP, engineered especially for the Eclair Camerette, affords complete external control of camera at all times. Features include "A", follow-focus control, "B", lens diaphragm control, "C", power switch, "D" pushbutton for internal viewing light, "E", camera threading knob, "F", rear viewing port, "G", port for observing film footage counter, "H", reflex viewfinder eyepiece, "I", knob for taking fill or eye light, "J", reflex mirror control, and "K", window for viewing lens markings

operation with the Camerette. The blimp is opened, the camera swung out, the used magazine detached, and a fresh one slipped in in its place. Similarly, inspecting the aperture plate may be done just as quickly and there is no rethreading of film after inspection.

The blimp shell and door are lightweight magnesium castings, featuring "egg crate" type of construction. The latter combines extreme rigidity with maximum strength, and at the same time provides the necessary space for accommodating the patented sound-deadening material that gives the blimp its unusual soundproof quality. The exterior finish is smooth, gray enamel, with all fittings plated. Net weight of blimp and camera, including loaded film magazines, is 100 pounds.

As may be seen in Fig. 3, the camera is mounted on a retractable base within the blimp. The base is double insulated and travels on a rubber track. When it is necessary to change magazines or to give the camera other attention, the single door of the blimp is opened and the camera swung out for easy access.

The Camerette being a reflex-type camera, the reflex feature is made accessible from exterior of the blimp. This requires no modification of the camera; when the camera is returned to its normal taking position, it is automatically aligned with the external eyepiece. This, incidentally, may be swiveled upward to facilitate convenient operation of camera when used at low levels, as shown in Fig. 2 below.

New Blimp For The Camerette

The ultimate in soundproofing is just one of many advanced features of the Eclair Cameblimp which takes either the 35mm or 16/35mm Camerette.

By LEIGH ALLEN

WITH THE INTRODUCTION of the new Cameblimp designed by J. Mathot and A. Coutant for the Eclair Camerette, this rugged and versatile motion picture camera is given new stature as a tool for professional motion picture production. The many features of the Cameblimp complement those of the Camerette and thus broaden the scope of production to which the Camerette may be applied.

A paramount consideration is the fact that with a combination 16/35mm Camerette in the blimp, one has a fully equipped motion picture camera for either 16mm or 35mm film production—the one unit serving either film field, and utilizing the same motor, lenses, etc. The fact that film loads are limited to 400 feet—the maximum capacity of the magazines—is no hinderance to using the blimped Camerette for major production work, because the unique Eclair magazines are ready-threaded and instantly interchangeable, so that what is normally a "re-loading and re-threading" operation for other motion picture cameras is a simple 5-second

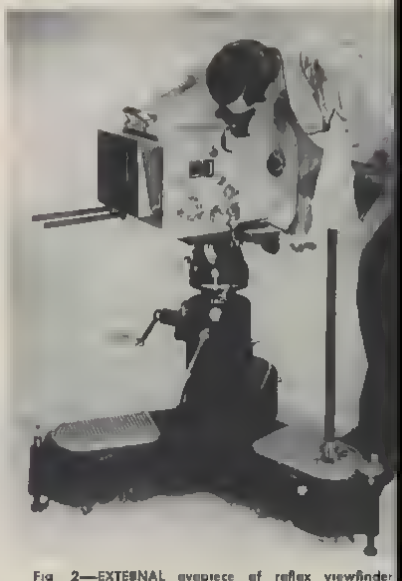


Fig 2—EXTERNAL eyepiece of reflex viewfinder may be swiveled upward to facilitate convenient operation of camera when used at low levels as shown here. Mobile camera support shown is also a product of manufacturer of Cameblimp

FIG 3—The single door of the Cameblimp is opened here to reveal the retractable carriage on which the Camerette is mounted. This affords quick and easy access to camera for changing magazines, checking aperture plate, etc. Also to be seen is the dual 3" by 3" filter holder in front of camera lens.

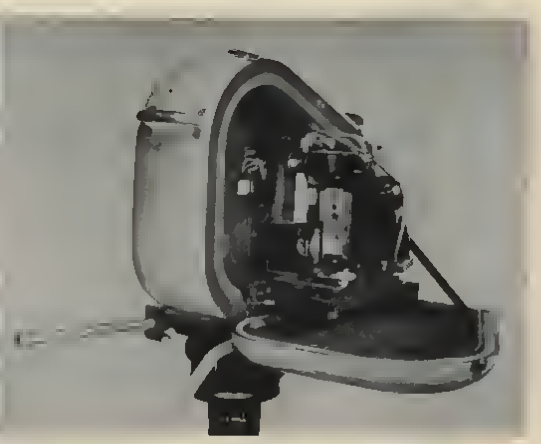


FIG 4—Here the magazine section of the Camerette has been removed to afford better view of the retractable carriage which slides out readily for inspection of camera. When camera is returned to position and blimp door closed all contacts with external controls are automatic and properly aligned.

The Cameblimp introduces no parallax problems, because viewing the image is through the taking lens, via the Camerette's reflex system, which is extended to the outside of blimp, as already stated above.

Convenient external controls are provided for setting focus, lens diaphragm, and follow focus, so that once the camera is loaded with film and the blimp closed, there is no need to open it again until it is necessary to change magazines.

The Cameblimp is probably the only blimp which permits working with an 18½mm wide-angle lens without picking up structural interference. The matte box rods, for example, are in two sections so that whenever a wide-angle lens is used, the forward half of the rods are removed to exclude them from lens range.

Further evidence of the skillful engineering that went into the designing of the Cameblimp is seen in the unique way that camera sound is completely damped through use of rubber couplings wherever a camera part, such as a control knob or lever, extends to join an external control. There is no metal-to-metal contact anywhere between the camera and the external fittings or the Camehlimp itself.

As may be seen in Fig. 1, all external controls and viewing ports are confined to one side of the Cameblimp. On the opposite side is the single, full-size door having a single lock. This is probably the only camera blimp which affords a clear, unobstructed view of the lens marks at all times, making it unnecessary to transfer such data to a supplementary external disc or tape. Observation of the lens settings is by means of the window "K," Fig. 1. There is a lamp for illuminating interior of blimp which is automatically switched on as the camera is started. At other times, the lamp is momentarily lighted for quick reference to the lens marks, as well as the footage counter, by depressing the button "D," Fig. 1. The film footage figures are observed through the port "G."

An important feature is that which provides for opening up the lens diaphragm for focusing, then stopping it down again for shooting, same as with many still cameras. This is accomplished by moving the diaphragm control "B," Fig. 1, to left. There are two check-screws on the guide plate which permit setting the range of the diaphragm control lever, so that it will always be returned to the f/stop established for shooting the scene.

The external matte box is of the telescoping bellows type and may be extended a maximum of 10". Inside the blimp, mounted on the camera carriage are two 3" by 3" filter holders. These are positioned immediately before the taking lens.

A single 6-wire cable feeds power to the camera, regardless of which of the two available motors are used: the 220-volt, 3-phase synchronous motor or the 110-volt, 60 cycle AC sync motor. Thus it is unnecessary to have two sets of power cables, and the bother of changing cables also when the motors are changed is eliminated.

The Cameblimp may be mounted on any professional tripod or mobile camera unit by means of the conventional screw, or a dovetail mounting bracket.

As a means of recapitulating the salient features of the Cameblimp, reference is made to Fig. 1. "A" is the external follow-focus control. The lens diaphragm control is at "B." The power switch is shown at "C" and the push-button for flashing on the internal lamp for illuminating lens and footage dials is shown at "D." "E" is the camera threading knob by which the camera mechanism may be advanced to open the shutter for reflex viewing of scene when camera is stopped. The port by which the camera operator may observe the lens setting from rear of camera is

(Continued on Page 119)

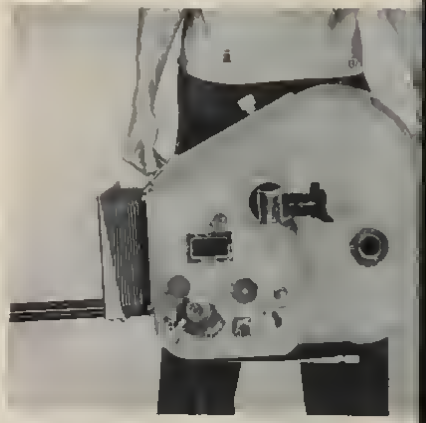


FIG 5—Two convenient handles make it easy to carry the Cameblimp with camera inside. Net weight with camera and loaded magazines is only 100 pounds.

Greatest Show on Earth . . .

Every week—everywhere—spectacle fallaws spectacle across the wide, wide screen. Figures, actian—near life in size—have new "claseness."

Street scenes, sports, wanders of nature—all "live" and "breathe" with reality.

New, changing technics af praductian, pracessing and projectian make all this passible . . . technics which
Eastman Technical Service far Matian Picture Film is pro
to work with the industry in solving. Branches at strate
centers. Inquiries invited.

Address: Matian Picture Film Department
EASTMAN KODAK COMPANY, Rochester 4, N.

East Coast Division
342 Madison Ave., New York 17, N.Y.
Midwest Division
137 North Wobash Ave., Chicago 2, Illinois
West Coast Division
6706 Santa Monica Blvd., Hollywood 38, California

Shakespeare In VistaVision

The requirement of extreme depth of field in every scene mode VistaVision a logical choice of cameras for Sir Laurence Olivier's "Richard III," photographed in England by Otto Heller.

By HAROLD BENSON

"THEY TELL ME you're a good cameraman," said Sir Laurence Olivier to Otto Heller B.S.C. "Well, if you work on 'Richard III,' don't try and win yourself an Oscar."

"Working for you is Oscar enough," Said Heller.

"And don't flatter me, either!" retorted Olivier.

That was Otto Heller's first meeting with Britain's most celebrated actor-director-producer. "Richard III" was being planned as an even more powerful production that "Henry V" and "Hamlet," and Heller, along with seven other cameramen, was interviewed by Sir Laurence during his efforts to find a director of photography who would do justice to his film conception of the story.

Heller was chosen. He has been filming in Berlin, Paris Hollywood and London since 1918, but he told me he still trembled when he was first approached in connection with "Richard III." "After all," he said in magnificently fractured English which defies reproduction in print "I might work on a costher production, some kind of super-epic, but it's difficult to think of any film which would carry more prestige value."

In less than forty years Heller has worked on "at least 150 films—silent, sound, monochrome, color, CinemaScope and VistaVision." He still remembers his first sound film. "I'd always had the habit of muttering a sort of running commentary on the action to myself under the hood in the silent days," he told me. "The first day on this talkie I did the same quite automatically 'Here comes the girl into the room, moves from the table to the chair, sits down, that's all, cut.' Of course, the mike picked it all up. I'd been concealed by the hood, and it took them hours to trace the commentator."

OTTO HELLER B.S.C. (left) who photographed Sir Laurence Oliver's "Richard III," is shown on location in London where he photographed Ealing Studios' "The Lady Killer." Here he watches actor Herbert Lom explain the Technicolor camera to his son, Nicholas

TYPICAL SCENE in "Richard III" demanding extreme depth of field in the photography

EVEN GREATER demand was made on the camera and lighting to achieve maximum depth in scenes such as this.

THIS IMPORTANT dramatic scene was lit and shot two different ways, with cameramen Heller's format proving best of the two

DELIBERATELY stylized studio exterior which demanded extreme care in the lighting to impart same atmosphere as in real exteriors

Heller has shot more than thirty films in Britain, including a number of those rare productions which have drawn praise for the cameraman from the critics, such as "The Queen of Spades" "The Rainbow Jacket" and "The Divided Heart." In Hollywood he worked on "The Crimson Pirate" his first major color feature, and "His Majesty O'Keefe" One of his own favorites is his "Never Take No For An Answer."

On "Richard III" Heller worked in close cooperation with the other major artists and technicians long before shooting began Olivier went through the script scene by scene with Heller, Carmen Dillon, the art director, and Roger Furse, the designer, until all shared the same visualization on the whole film. The team worked so closely together, in fact, that Furse designed several scenes from Heller's lighting plans.

Two weeks were spent rehearsing the distinguished cast before the camera-together and individually, in order to save camera rehearsals on the set. As a result there was exact maintenance of the daily schedule during production. In the eleven weeks of studio shooting Olivier completed a record of 165 scenes (This is something of a contrast with "Henry V" and "Hamlet," which were a year and six months on the floor respectively.)

Four weeks of location work in Spain preceded the studio shooting The matching of these battle sequences with the studio closeups provided Heller with some of his worst headaches. He described to me how he juggled with filters and lights, referring every couple of seconds to frames from the location material to insure exact matching

"Richard III" is in VistaVision and Technicolor Originally Olivier and Sir Alexander Korda planned to use Todd-AO and Heller had packed and prepared to fly to Arizona to see "Oklahoma"—the first Todd-AO production—in the making. VistaVision was to be

(Continued on Page 119)

THE BASIC element of the dramatic screenplay is conflict. Without a certain opposition of characters and elements there can be no drama. Audiences easily tire of a story that runs too smooth

THE IDEAL script is so arranged that each sequence builds higher than the last. An excellent example is Warner Bros.' "Miracle in the Rain," for which a scene is being shot here in New York

Preparing The Script

PART II

The story should begin in an active key—one that is lively, dramatic, interesting, or rich in suspense.

By CHARLES LORING

IN THE FIRST part of this two-part article which appeared in last month's issue, I pointed out that the film script should be as carefully planned and prepared as a homebuilder's blueprint, and that the motion picture—being an action medium—should be written and produced with the emphasis on action rather than dialogue. The preparation steps for writing a script were described up to the point of continuity, so this month we shall proceed from there.

In breaking down the treatment into scenario form, the first step is to divide the action into sequences. A sequence is a series of scenes which, when joined together in their proper consecutive order, put across a unified idea or phase of the story action. Most stories logically divide themselves into separate sequences. A study of the treatment will reveal where one phase of the story ends and the next begins. For simple comparison, one might say that a sequence in a screenplay is like a chapter in a novel.

If the various sequences are thought of as separate units, it will be easier for the screen-writer to break down the script. Taking one sequence at a time, he then will divide it into individual scenes or shots. Each of these scenes is, in turn, a unit within itself—but its pattern and meaning will be dependent upon the other scenes that precede and follow it, as well as upon the overall approach of the script. Unless this relationship is recognized and carefully integrated, the script will almost surely lack continuity.

It has been stated that a good script must have a beginning, a middle and an end. But actually it is not quite as simple as that. There are other elements of dramatic construction that must be incorporated into a successful screenplay.

First, the story should begin in an active key—one that is lively, dramatic, interesting, or rich in suspense. There is no place for a leisurely opening in today's screenplay; this tends to lull the audience into an indifferent frame of mind. Also, the opening should establish the locale, introduce the main characters, and explain something of the basic story situation. Suspense, as already pointed out, is a fine thing—but an audience requires certain explanations; it does not relish being left up in the air.

On the other hand, a story opening can be too dramatic or lively. It may actually be more exciting than anything that follows, thus the rest of the film becomes dull and anti-climactic. The ideal script is so arranged that each sequence builds higher than the last. In this way there is an overall rise in audience interest ending with the last or climactic sequence, which should actually be the highest point of action in the story.

In the same way each sequence builds to its own sub-climax before we can move on to treat the next phase of the story. The aim should always be to build up to the best scenes carefully, creating a setting so that when they appear on the screen they will seem to come as a logical climax, rather than merely spectacular shots that have been thrown in for effect.

Obviously, a script cannot continue to build in a perfectly straight line. A schematic chart of the script would properly show a rhythmic pattern of peaks and valleys, like a mountain range, with each climactic peak rising

(Continued on Page 116)

EASTMAN

PROFESSIONAL

MOTION PICTURE

FILMS

W. J. GERMAN, INC.

John Street
Fort Lee, New Jersey

6040 N. Pulaski Road
Chicago 30, Illinois

6677 Santa Monica Blvd.
Hollywood 38, California

THE TECHNIQUES used in producing short technical films at Speery Gyroscope Co. are streamlined since most films must be finished quickly to serve an immediate purpose. Here author K. H. Barney (left) and cameraman Frank Mehl line up a shot with the Cine-Special camera.

The Preparation Of Short Technical Films

By K. H. BARNEY

Speery Gyroscope Company

IN THE HIGHLY competitive field of electronic development there is quite frequently a need for motion picture films to be used in engineering or sales presentations to the customer. Often there is insufficient time for a full-scale motion picture production, yet the dynamic quality of a moving picture is required to stimulate customer interest in the product. This is especially true when the subject involved is a radar or similar system where the appearance of the various cathode ray tube presentations can be more realistically depicted by moving pictures than by slides or other still photographs.

We have found that short 16mm black-and-white films can be quickly produced at low cost to fulfill this need. In most cases it has proven convenient to make two copies of each film. One is a silent version designed for extemporaneous commentary by the engineer or salesman involved on the project. This is used in presentations away from the plant at locations where only 16mm silent projectors are usually available. The second copy (identical to the first) is printed on sound film stock and furnished with a magnetic sound track. The commentary is magnetically recorded on this version using a magnetic sound projector. This print can then be used for presentations at the plant or at other locations where magnetic sound equipment is available. This provides a sound-on-film version for use when the persons intimately acquainted with the film are not present. If necessary this latter version may be converted to optical sound-on-film at a later date.

The techniques used in producing these films are quite streamlined, since the films must often be finished in a very short period of time to be of most value. Consequently, the production is conceived and the script is written in terms of the materials that are actually on hand or may easily be obtained. After the preliminary planning of the script the narration is written in full for use with the magnetic sound edition. The reading of the narration by the person who will give the presentation is timed. This timing is then used for planning the lengths of the individual scenes in the film. Although the extemporaneous "off the cuff" commentary with the silent version is rarely as detailed as the magnetically recorded version (unless, of course, the narration is memorized word by word), it is usually delivered more slowly by the speaker. These two factors compensate for each other so that with a little practice anyone familiar with the material can talk along quite adequately with the silent version of the film.

Maximum use is made of the existing originals of diagrams, pictorial drawings, and photographs that may have been previously prepared for printed reports or brochures. The sequences and "action" of the non-live scenes are planned so that no frame-by-frame ani-

FIG 1—A simple drawing which was used to produce a complete sequence by panning the camera from area A to B to C as narration told the story

FIG 2—LIGHTING and camera setup for photographing PPI (Plan Position Indicator) shots such as one shown in Fig 3, at right

FIG 3—TRI-X film is used in photographing PPI shots such as this. Sensitivity of this film enhances realism of radar presentation

mation is required. By the use of close-ups, pans, lap dissolves, fades and a little ingenuity a great deal of "animation" may be obtained from inanimate drawings. For example, in a recent film it was necessary to depict the radar detection of a bomber flying toward the coast of a country. The drawing, Fig. 1, originally prepared for a company brochure, was used to depict the entire sequence. First the bomber alone was shown close up (Area A). The camera then panned slowly across the upper part of the diagram stopping on a close-up of the radar tower (Area B). A lap-dissolve to the radar operator and his presentation (Area C) completed the sequence.

Any new drawings such as circuit or block diagrams required especially for the film are made up according to the specifications for slides. Here simplicity is necessary. Every attempt is made to make the drawings as uncluttered and uncomplicated as possible. We have found it convenient to prepare these drawings in the size that is normally used for making slides. This standardization has proven satisfactory and permits the art work to progress from sketches through its completed form with a minimum of complication and supervision.

In filming block diagrams or schematics simple effects are used to focus attention of the audience on the part of the diagram being described by the narrator without the use of frame-by-frame animation. For example, a block diagram can be shown first in its entirety. As the narration proceeds, the part to be explained in detail is indicated by means of a pointer. This is followed by a closeup of the area being treated, whose salient features can be further highlighted by a pointer. The action of the pointer must, of course, correspond to the timing of the timed narrative. The pointer also conveniently serves to cue the extemporaneous narration.

As before, the selection of the scenes involving diagrams and their timing are governed by the same considerations that pertain to preparing a lecture with slides. Special care is taken to make sure that the information on each diagram can be fully understood by the viewing audience in the time allotted.

It has been found most expedient to film all titles and diagrams in their final order to cut editing time to a minimum. Fades and lap-dissolves are done in the camera. All pictures are shot at sound speed (24 f.p.s.) except where special effects are required.

Live action shots, whether interiors or exteriors, are usually photographed on Eastman Tri-X negative. The high speed of this film (A.S.A. 200/250) permits many interior scenes to be filmed without the use of special lights; the existing lighting level in the laboratories or office areas is usually sufficient. The sensitivity of this film also enhances the realism of radar presentation pictures. This is especially true in the case of Plan Position Indicator presentations, such as the one shown in Fig. 3, or other intensity-modulated presentations where the images fade very quickly to low levels of light output between scans.

(Continued on Page 118)

USING A Bell & Howell "202" magnetic recording projector, narration for Speery technical films are recorded in this sound-proofed room

FILMING A SCENE for "The Fall of the House of Usher." A severe gray coffin occupies center of virtually empty room. Walls are shrouded in deep brown drapery. The polished wooden floor is bare. Against this, Tullio Pellegrini and Sal Pizzo enact scene being photographed by author.

BURNING of the Usher mansion—example of the fine miniature work that marks the production produced by Sal and Nadine Pizzo.

MOTTLED and moisture-streaked gray stone walls of dungeon are illuminated by blue light which casts bars of shadow upon the stone floor.

The Drama Of Color In Cinematography

How its psychological implications were employed to give dramatic emphasis to "The Fall of the House of Usher," photographed in 16mm Kodochrome.

By NADINE PIZZO

A DISCUSSION OF COLOR as a functional, emotion-rousing ingredient in the motion picture is rendered more graphic by explicit demonstration. Having established certain basic considerations and procedures governing the dramatic usage of color, it will be well to illustrate by citing their specific application in a picture of a dramatic character. I will proceed with an analysis of a production upon which I worked as co-producer—"The Fall of the House of Usher."

The mood of the famous Edgar Allan Poe story is of such a quality and intensity as to linger in the memory for long years after the details of the story have been forgotten by the reader. To attempt the filming of this vehicle is, therefore, to attempt to translate mood into pictures, the intangible into the relatively tangible form of the visual. The mood is one of deep melancholy, lurking mystery, and hovering doom. Though this is a tale of mystery, it is no mere horror story. It is a subtle psychological study of the mental dissolution of a man who is overwhelmed by fear and the sense of impending

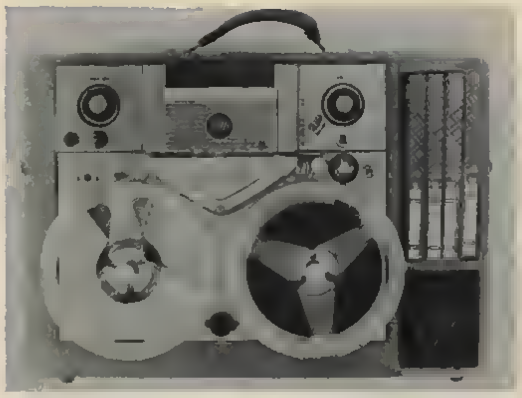
(Continued on Page 110)

ALTHOUGH dark brown wall hangings were liberally used in this setting of bedroom, wall areas of gray stone are purposely left uncovered to enhance medieval character.

CLOSE YOUR EYES...dream into our picture all the natural, living colors we'd love you to see!

Now! OPEN YOUR EYES to marvelous new 16mm ANSCOCHROME...the film that adds a new world of color...a brilliant new speed... to your home movies...outdoors, anytime you please! Treat your camera (and yourself) to new, high-speed 16mm ANSCOCHROME
Made by Ansco and it's great!

ANSCO BINGHAMTON N Y A DIVISION OF GENERAL ANILINE AND FILM CORPORATION.



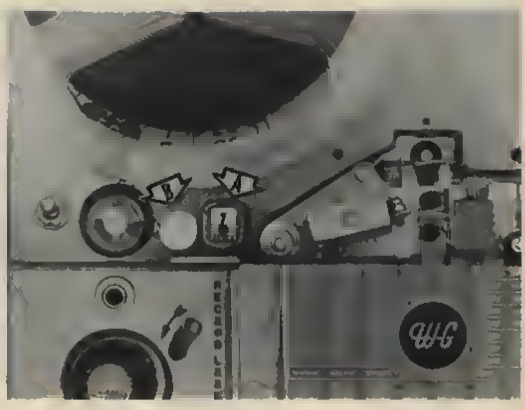


FIG 1—A standard tape recorder to which an auxiliary synchronizing head has been added is shown above. Photo at right is closer view, showing relative positions of the synchronizing head "A" and the normal recording mechanism. A tape guide "B" was added to smooth out the flow of tape

Coincident Sound For Home Movies

A unique system that insures perfect sync between any projector and magnetic tape recorder.

By JAMES N WHITAKER

Technical Staff Hughes Aircraft Company

THE SERIOUS movie-maker soon graduates from "shooting" movies and splicing them end-to-end. He edits his films to form logical sequences and later adds written titles or captions to explain the actions not fully clear to the audience. Not completely satisfied with silent projection, the next step usually is the addition of a musical background with the selections carefully arrangrd to fit the mood of the picture.

One method for the addition of mood music, which is still quite popular, involves the use of standard phonograph records and dual turntables, with the operator changing records in accordance with a carefully prepared score. The operator must follow the film closely and execute the changes in music smoothly and at the appropriate moment in order to provide an enjoyable show. This system requires considerable practice and concentration on the part of the operator and leaves much to be desired, particularly since it does not readily lend itself to the inclusion of sound effects and dialogue.

Several other methods have been used to provide sound with film. The most popular commercial system involves recording the sound separately, and then transferring it to a sound track on a master negative, the master negative and final sound track being the result of a considerable amount of selective editing.

(Continued on Page 105)

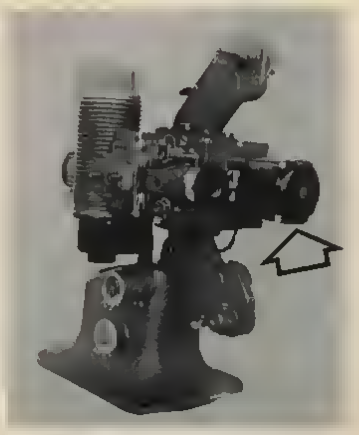


FIG 2—Arrow indicates synchronous motor mounted on a Bell & Howell "Diplomat" 16mm silent projector

THERE'S no pleasure for a home movie maker like that that comes from an audience genuinely pleased with his accomplishment. Sound, expertly integrated and synchronized will do more than anything else to raise the quality level of 8mm and 16mm home movie films. Author Whitaker's system makes this a simple process.

Roster

AMERICAN SOCIETY OF CINEMATOGRAPHERS

February 1, 1956

ACTIVE MEMBERS

L. B. Abbott
David Abel
Lloyd Ahern
Lucien Andriot
Gert J. Andersen
Arthur Arling
John Arnold
Gordon Avil

Lucien Ballard
Charles E. Bell
Carl Berger
Joseph Biroc
Charles P. Boyle
John W. Boyle
Wm. W. Bradford
Elwood Bredell
Norbert Brodine
Joseph Brun
Robert Burks

Ellis W. Carter
Walter Castle
S. C. Chuck
Dan Clark
Charles G. Clarke
George Clemens
Wilfrid Cline
Russell Collings
Edward Cohman
Olle Comstedt
J. Burgi Contner
Stanley Cortez
Ray Cory
Edward Cronjager
Floyd Crosby
Russell Cully

Wm. H. Daniels
Mark Davis
Faxon Dean
Robert de Grasse
George E. Diskant
Linwood Dunn
Edwin B. DuPar
Elmer Dyer

Paul E. Eagler
Arthur Edeson
A. Farciot Edouart
Russell Ervin

Max Fabian
Daniel L. Fapp
Jock Feindel
Ray Fernstrom
Frank Finger
Edward Fitzgerald
Frank R. Follette
George J. Folsey, Jr.
Ray Foster
Ellsworth Fredericks
Henry Freulich
Karl Freund
John P. Fulton

Lee Garmes
Frederick Gately
Maury Gertsman
Alfred L. Gilks
Irving Glassberg
Donald C. Glouner
James Gordon

W. Howard Greene
Jack Greenhalgh
Loyal Griggs
Burnett Guffey
Carl Guthrie

Harry Hallenberger
Ernest Haller
Sol Halprin
Ralph Hammeras
Russell Harlan
Charles Harten
Reed N. Haythorne
Charles W. Herbert
John L. Herrmann
Sid Hickox
Gerald Hirschfeld
Robert Hoag
Winton Hoch
David S. Horsley
Erich Horvitch
James Wong Howe
Ed Hyland

Allan E. Irving
Ub Iwerks

G. Floyd Jackman
Fred W. Jackman
Wm. H. Jansen
Ray June

Boris Kaufman
W. Wallace Kelley
Glenn Kershner
Benj. H. Kline
Lloyd Knechtel
H. F. Koenekamp
Milton Krasner

Charles B. Lang, Jr.
Joseph LaShelle
Ernest Laszlo
Charles C. Lawton, Jr.
Sam Leavitt
Paul K. Lerpae
Lionel Lindon
Leo Lippe
Harold Lipstein

Jae MacDonald
Jack MacKenzie
Don Malkames
Fred Mandl
J. Peverell Marley
John J. Martin
Harold J. Marzorati
Rudolph Mate
Ted McCord
Wm. C. Mellor
Ray Mercer
Russell L. Metty
Arthur C. Miller
Ernest W. Miller
Virgil Miller
Victor Milner
Hal Mohr
Ira H. Morgan
Nick Musuraca

Harry C. Neumann
Joe Novak

Roy Overbaugh

Louis Page
Ted Pahle
J. F. Painter
Ernest Palmer
Kenneth Peach
Harry Perry
Paul Perry
R. W. Pittack
Robert H. Planck
Frank Planer
Sol Polito
Gordon B. Pollock

Clark Ramsey
Frank Redman
Ray Rennahan
Irving Ries
Irman Roberts
George H. Robinson
Guy Roe
Len H. Roos
Jackson Rose
Charles Rosher
Harold Rosson
John L. Russell, Jr.
Joseph Ruttenberg

Robert Sable
Charles Salerno, Jr.
David Savitt
George Schneiderman
James Seeley
John Seitz
Leon Shamroy
Henry Sharp
Douglas Shearer
Lester Shorr
William A. Sickner
Wm. V. Skall
Edward Snyder
Wm. F. Snyder
Harry Squire
Ralph Staub
William Steiner, Jr.
Mack Stengler
Alan Stensvold
Clifford Stine
Harold Stine
George Stoetzel
William J. Storz
Archie J. Stout
Harry Stradling
Walter Strenge
Karl Struss
Robert L. Surtees

Philip Tannura
Stuart Thompson
Robert Tobey
Leo Tover
Thomas Tutwiler

Charles Van Enger
James C. Van Trees
Zoli Vidor
Paul C. Vogel

Joseph Walker
Gilbert Warrenton
Harold E. Wellman
Fred West
Albert Wetzel
Lester White
Wm. F. Whitley
Harry Wild
Wm. N. Williams
Rex Wimpy
Lothrop Worth

Frederick A. Young

Frank C. Zucker

ASSOCIATE MEMBERS

Herbert Aller
Simeon Aller
Mark Armistead
L. J. Baker
Benj. Berg
Edgar Bergen
John Bishop
Louis A. Bonn
Gifford S. Chamberlain
L. M. Combs
J. L. Courcier
George Crane
Edward P. Curtis
Wm. A. Cushman
Dr. C. R. Daily
J. T. Dougherty
John DuVall
William Eglinton
Ferdinand Eich
Walter L. Farley, Jr.
Ted Fogelman
Fred W. Gage
Mark P. Gerrine
George H. Gibson
Dennis F. Godfrey
Henry Goldfarb
Charles Handley
Robert Hansard
Ted Hirsch
Wilton R. Holm
Emery Huse
Donald Hyndman
W. F. Kelley
Wilson Leahy
Sidney Lund
Lewis L. Mellor
Garland C. Misener
Peter Mole
Hollis Moyse
O. W. Murray
Capt. Don Norwood
Stacey O'Brien
Val E. Osborne
Emil Oster
Harry E. Pratt
H. W. Remerscheid
Robert Riley
Loren Ryder
V. M. Salter
Norwood L. Simmons
Sidney P. Solow
Earl Sponable
John J. Swain
Randall Terraneau
Lou Vincent
Wm. J. Wade
Jack Webb
Robert Young

HONORARY MEMBERS

E. O. Blackburn
Wm. J. German
A. S. Howell
G. A. Mitchell

Film Editing Made Easy
with NEW
professional film viewer
for 16mm film

Every film editor will appreciate a viewer that enables him to view his film from left to right—on a large, brilliantly illuminated screen.

The PROFESSIONAL FILM VIEWER *makes film editing a breeze. Easy threading, portable, will not scratch film. Put this viewer between your rewinders and speed up your editing. Size of Viewing Screen 6"x 4".*

Price—$350
Counter additional $100

FRANK C. ZUCKER
CAMERA EQUIPMENT CO.
DEPT. A-2-4 1600 BROADWAY, NEW YORK CITY

COINCIDENT SOUND

(Continued from Page 103)

This method is not practical for certain professional and advertising work or for amateur uses because of the expense, complicated processes, and time involved in the various steps required in the ultimate production of a finished film.

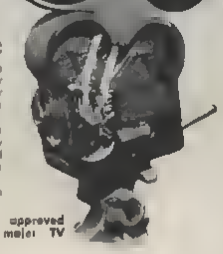
Another popular method involves recording the sound directly on the film at the time of the initial exposure. This system requires the use of special sound cameras and amplifying equipment which is both cumbersome and costly. In instances where 16mm film is used, it also involves running the film at a frame speed of 24 per second compared to the normal so-called "silent" film speed of 16 frames per second commonly used in connection with 16mm or 8mm amateur motion picture work. Even at the 24-frame film speed, the quality of the reproduced sound is not too satisfactory because of the relatively low linear speed of the film. Another disadvantage to single-system sound-on-film recording is that the sound is displaced a considerable distance along the film with respect to the photographic image. This introduces problems in editing since an undesirable portion of the film may include

Charles Ross INC.
EVERYTHING FOR
EASTERN PRODUCTION
•
- LIGHTING -
GRIP EQUIPMENT
PROPS - GENERATORS
DOLLIES - MICROPHONE BOOMS
(Catalogs Upon Request)
333 WEST 52nd ST. N.Y. 19, N.Y. CI 6-5470

NEW LOW PRICES—

Convert Your Auricon Pro or Cine-Voice to Accept 400-ft Magazines

Shoot Complete SOF Television Programs!



The most satisfactory custom conversion to use all film rolls from 50' through 400' with magazines of either Bell & Howell or Mitchell type for direct sound recording on 16mm. Your camera is entirely rebuilt, refinished and converted or we can supply complete new units on order.

Thoroughly tested, approved and in use by major TV stations

- Magazine will accept up to 500' bulk loaded film
- Signal light tells when camera is running
- Direct drive—no lag or speed-up of film travel
- Veeder reset type footage indicator built in
- Built in filter slot with 2 filter holders
- **We use no external motor drive!**
- Built in camera phone jack for monitoring sound
- Exclusive ball-bearing shaft magazines
- Camera lock on plugs for all sound cables

Convert Customer-Owned Camera Less Magazine **$345.00**

WRITE FOR LITERATURE

HAROLD'S Photography & TV

308 South Phillips Sioux Falls, S D

Automatic Daylight Processing

DEVELOPING TANK

- Processes up to 200 Ft
- 8mm-16mm 35mm
- Movie—X Ray—Microfilm
- Motor driven portable
- Tough plastic tanks
- Uniform density Assured
- 70mm tank also available

FILM DRYER

- Motor driven—Heated
- Speedy drying
- Automatic shrinkage allowance
- Stainless steel and aluminum construction
- Easily assembled without tools
- Compact Portable

Guaranteed Write for Free Literature

Micro Record Corp. Dept AC 487 South Ave. Rocco, N Y

SPECIAL OFFER TO Auricon-Pro Owners

SOS will accept your old camera or surplus equipment as a trade-in for the "All New Auricon Pro-600"

Time Payments, too!

S.O.S. CINEMA SUPPLY CORP.

Dept F, 602 W 52nd St N Y C 19—PLaza 7-0440
Western Br 6331 Hollywood Blvd., Holly'd, Calif

a desirable portion of the sound track.

With the availability of tape recorders in the popular-priced field, some enthusiasts have recorded the entire program on tape to free the operator from the problem of changing records every few moments. This system requires a stroboscope and a strobe light on the projector in order that the film speed may be closely regulated. Since the speed of most tape recorders is relatively constant, a careful operator may produce quite satisfactory results for relatively short films with this system, providing he keeps an eye on the stroboscope and a hand on the speed control of the projector at all times.

Synchronous motor drives applied to both the film projector and tape recorder can only partially solve the problem because of tape "creep." Even with the most expensive recorders, an accuracy of better than ten seconds in one hour of continuous operation cannot be relied upon, and an error of ten seconds in coincidence between the optical image and the sound could not be tolerated, even for musical background alone, and would be out of the question for sound effects and dialogue.

In some commercial applications a special magnetic recording mechanism incorporating a perforated tape and sprocket system is used to assure coincidence. Here again, special equipment of an expensive nature is involved.

Another system which is more practical for the hobbyist involves the use of a standard projector and a special magnetic tape with a striped plastic base, so oriented that the flashes of light from the projector film gate will strike the striped tape, producing a stroboscope effect which enables the operator to adjust the speed of the projector to coincide with the movement of the magnetic tape. The major disadvantage of this system is that the operator must continually watch the tape and adjust the speed of the projector to compensate for the variations in power line voltage, tape creep, and other irregularities which tend to change the speed of the projector, the tape, or both.

In order to include the obvious advantages of tape recording as the sound source for home movies, and to retain the economy of the 16 frame film speed, the author embarked on a development program with an absolute lock-in between the linear speeds of the tape and motion picture film as the ultimate goal. Now that the problem has been solved, the answer seems obvious, although the development work covered a period of more than five years with all sorts of mechanical and electrical servo-mechanisms and controls devised and discarded for one reason or another.

The final system which will be described in the following paragraphs overcomes the major objections of previous arrangements. It provides for a sound track capable of maintaining coincidence with the optical track, incorporates the means for producing any desired degree of fidelity of sound reproduction, does not require the constant vigilance of the operator to maintain coincidence, permits the use of a standard motion picture camera operating at a film speed of 16 frames per second for photographing the original optical track, provides for post recording of the sound track, is so simple in its operation that even a novice may obtain satisfactory results, and involves a minimum of auxiliary equipment and expense.

Unless "lip sync" is required, no auxiliary or modified equipment need be used in connection with the original photography. This removes one major objection encountered in the use of sound-on-film recording. The extra equipment required for projection is little more than that available with an existing magnetic tape recorder and motion picture projector.

A simple modification of the tape recorder, the addition of a synchronous motor to control the speed of the projector and an amplifier system for driving the synchronous motor from the output of a tape recorder head, will convert a silent projection system to a coincident sound system.

Most popular tape recorders are what is commonly known as "half track" recorders. They record a magnetic image on one half of the tape. The tape is normally removed from the machine, turned over, and again run through the tape recorder to make use of the other half of the tape.

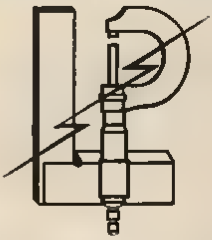
In the system described here, a standard tape recorder normally providing for half-track recording is fitted with an auxiliary recording head so positioned that it will record on the unused half of the tape. Saturation of the tape is accomplished by the direct application of 6.3 volts of a-c from the amplifier cathode heater supply system. Previous erasure is not required since the saturation of the tape automatically erases any previous recording.

A small synchronous motor is mounted on the projector in such a manner as to control the speed of the projector. This motor is driven from the amplified synchronizing tone recorded on the tape during playback, and from the power line during the recording procedure.

To set up a sound track for a film, the operator places the film in the projector in the usual manner. A mark is placed on the film leader at a pre-determined point. The projector speed control is adjusted to a value which has previously been determined to be the optimum set-

PRECISION SOUND READERS

Look for this trademark



It is your guarantee of the finest in sound editing instruments.

OPTICAL
Model 600 — 16mm and 35mm
NET PRICE $185.00

MAGNETIC
Model 700 — 16mm, 17.5mm, 35mm and ¼ inch
NET PRICE $198.00

OPTICAL-MAGNETIC
Model 800 — 16mm, 35mm & ¼ inch
NET PRICE $259.50

FEATURES: Simple threading . . . polished stabilizer drum with needle bearings, with a surface which cannot damage film . . . film rollers machined to conform with SMPTE standards, and equipped with oilless bearings . . . precision ground shafts . . . dimension 6x6x7½ inches.

AMPLIFIER: 117 volt — 60 cycle — AC . . . power output — 4 watts . . . heavy duty Alnico V speaker . . . safety fused . . . prefocused socket . . . pilot light . . . 6 ft. heavy duty cord.

All Prices F. O. B. Factory, Brooklyn, New York

Write for Literature

PRECISION LABORATORIES
1130 UTICA AVENUE • BROOKLYN 3, NEW YORK

ting to permit reliable speed control by the synchronous motor.

When the projector is turned on the synchronous motor locks the projector in step with the power line frequency. As the mark on the film leader passes a predetermined point, the tape recorder mechanism is switched on. As the film progresses, commentary, background music, or sound effects are recorded on the normal track of the magnetic tape by speaking into microphone or by operating the phonograph. By watching the film and manipulating the phonograph and microphone, the operator may cause the desired sound to occur at a time coincident with the action portrayed by the film. Simultaneously, a 60-cycle synchronizing tone is recorded on the other track of the magnetic tape by the auxiliary recording head. This one will later control the speed of the projector during playback, as will be described further on. Other means may be used for producing and introducing the sound effects, for example, other tape recorders, dual phonographs, etc., may be used, the outputs of which would be connected to the recording amplifier, or mixing circuits may be included in the recording amplifier to permit the simultaneous recording of commentary and music or sound effects.

For projection, the film is threaded

CRAIG **BIG SCREEN** MOVIE VIEWER

- Large (3¼ x 4¼ in.) hooded screen
- Flat field projection lens and ground & polished condenser lens
- Rotating optical prism shutter
- Stainless steel film guide
- Left to right film travel
- Automatic lamp switch
- Built-in frame marker
- Focusing and framing adjustments
- 75 watt projection lamp

$49.50 for 16 mm. or 8 mm. model

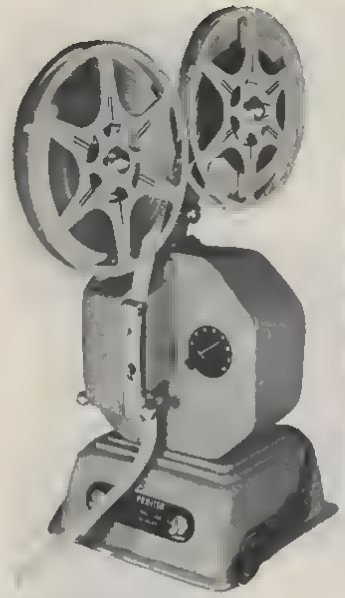
it's complete! it's portable! the

CRAIG PROJECTO-EDITOR

- Big Screen Craig Movie Viewer
- Folding Geared Rewinds (400-ft. capacity)
- Craig Master Splicer
- Complete with carry case
- Choose 8 or 16mm model

only $79.50 at all dealers

Write for illustrated literature, KALART, PLAINVILLE, CONN. DEPT. AC-2



CINE 16MM PRINTER

For Sound or Silent Film

TO MAKE COPIES OF YOUR MOVIES

Makes perfect contact, steady pictures. The lights are separately controlled for sound and picture by rheostat with 10 light densities

Price: $125.00 (Sound and picture printer)
95.00 (Silent picture printer)
F.O.B. Detroit

UHLER CINE MACHINE CO.

15778 Wyoming Ave. Detroit 38, Mich.
UNiversity 1-4663 • (Cable) UHLCIMA

Ready-Eddy

U.S. Registered Trademark

SIXTH YEAR—USEFULNESS ACCLAIMED BY THOUSANDS—READILY READABLE

1001 Handy Sound-Film Editing Data:
• Footage • Frame Count • Screen Time • 35mm and 16mm equivalents

Plastic computer for everyone in movies and TV, from script to screen. A time saver!

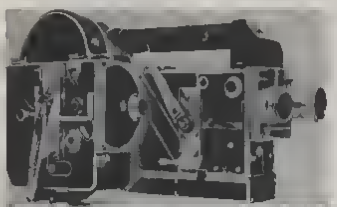
$2.00 Prepaid

(Delivered in U.S.A.)

ASK FOR REPRINT OF ARTICLE IN AMERICAN CINEMATOGRAPHER

Write or ask your dealer

READY-EDDY Sandy Hook, Conn.



Automatic dissolve attachments for Cine Special and Bolex H-16 and 8 (Equipped with Pellegrini Shutter)

JOSEPH YOLO, 1037 N. La Brea
Phone Gl. 7103 Hollywood, California

through the film gate and sprockets of the projector in the usual manner. The power for the drive motor and for the projection lamp is obtained from the power lines. Power for the synchronous motor is provided by the synchronizing tone amplifier. The magnetic tape is placed in the tape recorder as is customary, with the starting point coincident with the start of the recording. This point may be indicated in any satisfactory way, such as by a mark on the tape, etc. The projector is switched on, and when the mark on the film leader passes the previously pre-determined point, the tape recorder is started.

The tape recorder mechanism is substantially instantaneous in starting. The synchronizing tone which was previously recorded on the second track of the magnetic tape produces an electrical output wave in the auxiliary recording head. This electrical wave is applied to the synchronizing amplifier which amplifies the synchronizing tone to a level sufficient to drive the synchronous motor which in turn controls the speed of the projector through a mechanical linkage.

Simultaneously, the normal sound output from the tape is amplified and applied to the speaker system where the electrical wave is converted into audible sound.

Since the speed of the projector was controlled by the power line frequency when the sound was recorded, and since the power line frequency was recorded simultaneously with the recording of the sound, and since the power line frequency recorded on the tape is used to control the speed of the projector during playback, it follows that if the tape mechanism is started at the proper time relative to the position of the motion picture film, the sound will always be reproduced coincident with the action portrayed by the film to the same degree as it was coincident when recorded.

Thus we have a means by which sound may be added to a silent motion picture screening in a manner independent of the type of film used, film speed or tape speed, and with the only requirement being that the same relative speeds be used in playback as were used in recording. For instance, a tape speed of 3.75, 7.5, or 15 inches per second may be used with equal results insofar as synchronization of the film and sound are concerned. The choice being one of preference or convenience only. Likewise 8mm, 16mm, or 35mm film may be used at any standard frame speed with equally accurate coincidence between sound and picture.

Since the speed of the projector is controlled by a synchronous motor whose power is derived from a tone recorded on the tape, reasonable variations in tape speeds will not disturb the coincidence between the photographic image and the sound as originally recorded. In actual practice, tape speed variations of sufficient magnitude to cause the sound to be completely unsatisfactory may be present without causing the synchronous motor to lose control of the projector speed.

The more advanced amateur or professional who wishes to have complete sound coincidence, including "lip sync" may obtain the desired result by driving the camera with a synchronous motor, using a tape recorder equipped with the auxiliary recording head to simultaneously record the sound and the power line frequency. The editing problem in this case is no greater than that encountered in commercial systems using separate sound recording devices. There is the added advantage of the possibility of high-fidelity recording, lower or "silent" film speed, and a minimum of expensive equipment.

The auxiliary recording head found most convenient for this purpose is the Brush Type BK 1090. This head has a high output and since it requires a single hole for mounting, may be conveniently located in any position which permits the normally unused half of the tape to pass over the pole face. An auxiliary tape guide may or may not be required. A typical installation is shown in Fig. 1. Tape recorders equipped for dual channel recording will require no modification. A low voltage 60-cycle a.c. signal may be recorded in the second channel. During playback, the output from this second channel is applied to the input of the synchronizing amplifier, which in this instance may be any amplifier capable of providing an output of ten watts at 60 cps. to drive the synchronous motor.

Next month I shall describe how the synchronous motor is mounted on the projector and also give details of the construction and use of the synchronizing amplifier.

MOVING?

When changing your address, please notify us at least four weeks in advance. BE SURE to give your Former address as well as your New address. Our Circulation Department needs both addresses in order to properly identify your address stencil.

Your cooperation will insure that American Cinematographer will continue coming to you regularly without delay or omission of issues. Thank You.

—American Cinematographer

PICTORIAL EMPHASIS

(Continued from Page 87)

The three production photos reproduced here reveal how this technique was applied to three different scenes. Interior scenes throughout the picture reveal a classic pattern of lighting that is not altogether new nor excelled by other cinematographers. Pinpointing of light has been employed very skillfully to give depth and pleasing eye appeal to scenes played in interior sets. Moreover, it is adroitly used to give dramatic emphasis to one player, when two are photographed in a closeup or two-shot. The player whose scene it is is brightly lit while the other is given less light or subdued in darkness altogether. In this way the dialogue is given emphasis and the dramatic situation is greatly enhanced; attention is concentrated on the players and there is nothing pictorially to divert audience attention.

Photography of exteriors is equally meticulous. Indeed, more than 90 per cent of the picture consists of exteriors; and these are marked with a photographic realism that makes a rock look like a rock, a weatherbeaten facade genuinely so, and a dull day really overcast.

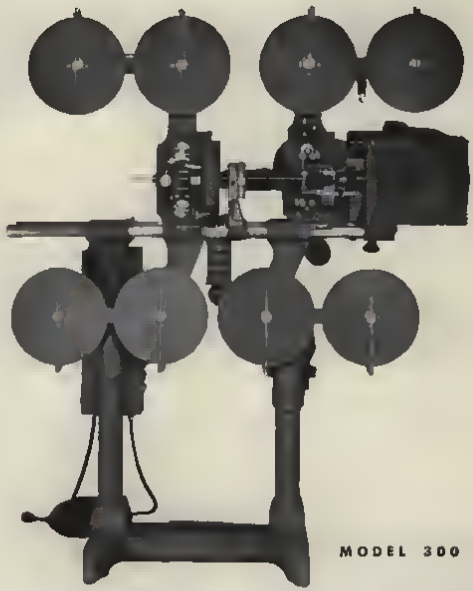
One standout scene is the hanging that takes place during a light rain in which the sky is heavy with ominous clouds—lending just the right pictorial touch to a violent scene. The scene was planned that way. The company waited four days for the weather to change, and the scene was shot at dusk to further enhance the somber pictorial aspect of the action.

The location exteriors were shot in the vicinity of Grand Junction, Colorado, over a period of twelve weeks during which time the company never missed a single day of shooting because of bad weather. The studio built a complete ranch set in a picturesque valley representing the famous "Rodick's Valley" described in the novel, "Jeremy Rodick," from which the screen play was adapted. Here Jeremy Rodick, played by James Cagney, bred and raised fine horses for Wells Fargo Express. Here Rodick held supreme as both rancher and the law—the nearest law-governed town being over 200 miles away. So as rustlers stole his horses and were caught, Rodick ruthlessly and swiftly applied his law—hanging from the nearest tree.

"Hanging fever" is the term his subordinates gave the sudden, strange impulse that gripped Rodick whenever he learned his horses had been stolen or killed by rustlers. And this vengeful mood is crystalized into dramatic action in the closing sequences of the picture when Rodick and his men come upon

Peterson

OPTICAL PRINTER



MODEL 300

FOR HIGHEST QUALITY PICTURE REDUCTION PRINTING

- Reduction Printing from 35mm to 16mm
- Enlarging from 16mm to 35mm
- Contact Printing 16mm to 16mm
- Contact Printing 35mm to 35mm
- Fully Automatic Fade can be provided

LITERATURE SENT ON REQUEST

MOTION PICTURE PRINTING EQUIPMENT CO

Mfrs. of Optical and Continuous Printers and Accessories

8136 NORTH LAWNDALE AVENUE • SKOKIE ILLINOIS

The Original

BARDWELL-McALISTER

Lighting Equipment

ACCESSORIES • HANGERS

GRIP EQUIPMENT • CABLES, ETC.

Sold By

SCHOEN & CROWE

403 West 47th St. New York 36, N.Y.

Send For Our Catalog

CINEKAD
Synchronous Motor Drive for
16mm Projectors

Especially designed to drive all Bell & Howell Ampro and Victor 16mm projectors at Synchronous speed and for TV studios

The synchronous motor drive can be instantly attached to projector and taken off at any time. No special technical knowledge required for installation and mounting.

The synchronous motor drive is complete with base plate. Cannon plug for cable and power switch, and a set of reduction gears.

Write for more details and prices

Also available on special order Synch Motor drive for all Simplex 35mm portable projectors

ONE YEAR GUARANTEE!

Immediate Delivery

CINEKAD
ENGINEERING COMPANY
500 West 52nd St., New York 19, N.Y.
Plaza 7-3511

LAB-TV
Professional
16MM BLACK & WHITE
REVERSAL
PROCESSING

•

Processing on hourly schedule for leading TV Stations and Producers

•

FASTAX SPECIALISTS

•

Write for Circular

247 W. 46th St.
New York 36, N. Y.

three outlaws in the act of mutilating the hooves of a herd of his horses stolen during the night. His vengeance now knows no bounds. Instead of hanging the outlaws, he decides to inflict upon them the same suffering they are inflicting on his horses by trimming their hooves to the quick. Rodick orders the outlaws' hands tied behind their backs and their boots removed. For the first time he decides to turn outlaws over to a law enforcement agency—forcing the men to walk the entire 200 miles in their stocking feet.

Here Surtees's camera assumes a more important role in pointing up the torture the men endure as they walk slowly toward the distant town through sagebrush, cactus and rocks. The camera frequently moves in close to show the men's bleeding, blood-caked feet shuffling over sharp rocks, stumbling through a patch of cactus—driven relentlessly forward by Rodick and his men on horseback. Lens focus is deliberately crisp in these closeups to sharply etch details, as dictated by the stylized pattern of photography set for the picture. Here, more incisively perhaps than in all the rest of the picture, pictorial emphasis has been applied with great skill to give these climactic scenes the utmost realism.

Pictorial emphasis in cinematography has been roughly defined as the art of utilizing all the potentials of photography to enhance a mood, a story or characterization; of making a scene visually more appetizing, of making the photography contribute something tangible and specific to the story besides merely recording it. "Tribute to a Bad Man" has all this. And a great tribute it is to two-time Academy Award winner Robert Surtees who photographed it.

THE DRAMA OF COLOR IN CINEMATOGRAPHY

(Continued from Page 100)

tragedy. All this is set forth in language of dark poetic beauty. Should the photoplay fail to establish and sustain the emotional essence of this vehicle, no amount of proficiency can save it from complete failure. This is one of Poe's group of stories properly categorized as "Tales of the Wierd and the Beautiful," and the production must be realized in these terms.

What, then, is the role of color in a picture of this type? Would this story not best lend itself to black-and-white? True, it is a superb black-and-white vehicle; but were this to be interpreted upon the stage it would be done with color. It is a misapprehension to believe that color is effective only when it can be used lavishly. It is no less eloquent in a low-key than in the higher registers. For emphasizing the mood of "Usher" it was one of the most potent means at our disposal.

The period of the story is set for the year 1839. It was in this year that the tale was written. It is ideal for our purpose from the costume standpoint, for at this time dress had evolved from the flamboyance of the earlier part of the century to the relative conservatism necessitated by our vehicle. Once the historical time is established for a production, you have a general framework within which to work in planning sets and costumes. In this particular case we had a wider range than the early 19th century, for the Usher mansion was very old and could well incorporate features from even earlier times.

The location of the gloomy mansion was a remote section of the country, presumably rural England. It stood in utter isolation in a desolate landscape. The model of the house which we designed and built was a gaunt, tragic symbol of decaying magnificence. It was deep gray in tone and mottled and weather-stained with age. The landscape setting was barren and dreary, and accented with the gray tortured skeletons of dead trees. The sky was moody gray. The outdoor sequence which must correspond in color quality to our model landscape was filmed in a setting that might conceivably border the Usher estate, and shot under a gray sky. As a matter of fact, it rained before we were done with that morning's shooting. Sky inserts which were used at strategic points in the picture had to echo the tragic tensions building during story's progression. We waited weeks for just the right weather conditions. Finally our patience was rewarded by a stormy day with leaden clouds and high wind. These skies were filmed as night scenes, and the dark, ominous blue-grays carry just the right mood quality.

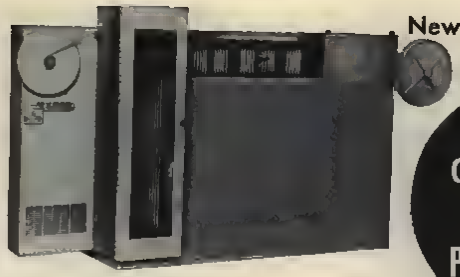
Our interiors, in which the story unfolds to its inevitable tragic climax, are restricted in number. Therefore, each set must carry a heavy burden in conveying the total impression of the character of this house. There must be an air of antiquity, which is conveyed by the barren gray stone work in certain interiors. There must be cheerlessness coupled with luxury. This was an old and wealthy family with an appreciation for the beautiful. Above all there must be a dark, brooding quality. For

the master color note dark brown was selected. In floor to ceiling drapery this dense brown covered most of the walls, providing a gloomy background for the richer color notes of other furnishings. With this background we were able to create the illusion of spaciousness which, in fact, we did not have. Also, the darkness of the backdrops contributed to the success of the chiaroscuro effects essential to the mood of the drama.

Now that an over-all unity has been established for the production's settings, let us examine individual sets for their variations within the master scheme. The settings for any given sequence must support the dramatic action and stress not only the individuality of the actors but their psychological developments. The basic set is Usher's studio, which reflects most intimately the man and his tastes. Against the gray and deep brown of the walls are placed the warmer browns of cabinets, tables and a partial room divider of intricately cut out oriental pattern. The dark blue upholstery of a carved chair, the deep gold of a small antique sofa, and the exquisite bas-relief of a Chinese screen in the color of old ivory establish the family taste for rich and exotic furnishings without in any way destroying the oppressive mood. The comparative sparseness of the furnishings contributes to the illusion of spaciousness. Usher is first seen against the fabulous carving of the ivory screen and thus immediately identified with his environment.

The painting sequence, filmed in an area of the studio room, is the most colorful in the picture, but this color is presented under extremely dramatic lighting. It recedes into shadow and leaps into brilliance. This scene not only portrays Usher in one of his most outwardly normal moods but, in showing him at his easel, further reveals his aesthetic nature and something of the strangeness of the inner man. The canvas on the easel with its insane reds and tortured tree forms, the lonely blues and unwholesome red-browns of the two canvases resting in dramatic contrast against a rich gold screen permit us a glimpse into a tortured soul. I will discuss the costumes in this sequence at a later point. This scene is strongly symbolic of the mental torment suppressed beneath the man's outer mask of quiet concentration.

The death bed sequence immediately follows a scene where the friend wanders restlessly about the richly furnished studio. The dramatic impact is even further heightened by this contrast. The sister's room is shadowy and completely shrowded in dark brown. The only furnishing is the bed, with a medium brown satin counterpane and rich brown satin side draperies. The girl's face, framed against a white pil-



New Cantilever Model R-15

Filmline Combination REVERSAL PROCESSOR

—a great value with unique features

Never before a 16mm negative-positive processor with such unique features. For instance: Positively eliminates film breakage. Film can be held manually while machine is running, without harm. Features exclusive overdrive film transport, permits daylight operation on all emulsions, with variable speeds up to 1,000 feet per hour. Tanks built of heavy-gauge Stainless Steel, with 1,200 feet magazines, feed-in elevator and filtered air supply to drybox. Many, many other features for the operator who wants to "get there first with the most and best quality film."

Write for further details and literature.
Other models available from $1,129.00.

FRANK C. ZUCKER
CAMERA EQUIPMENT CO.
DEPT. A-2-22 1600 BROADWAY, NEW YORK CITY

HERE IT IS . . . . .

The **Dual Reader**

Patent Pending

AVAILABLE FOR OPTICAL and MAGNETIC SOUND!
JUST IN TIME FOR THE NEW AURICON FILMAGNETIC UNIT!

NOW you can edit single system picture with Magnastripe sound or double system with separate magnetic track, in perfect synchronization.

SEND FOR DESCRIPTIVE LITERATURE!

THE **CAMERA • MART,** INC.

1R45 BROADWAY at 60th St.
New York 23, New York

Phone: Circle 6-0930
Cable: CAMERAMART

Make your outdoor movies really complete with on the spot commentary and conversation. Record the story while you shoot the film ... even in far away places where electric power is not available. A CARTER CONVERTER and a storage battery supplies 110 v AC, operates your wire or tape recorder AND electric motor driven movie camera BOTH AT ONCE. Satisfactory "sync" and playback assured. Where synchronization is not vital, it's fun to make RECORDINGS even when using a spring driven camera. Record camera exposure data, remember what happened, when, where, who and how, so you can make better titles and comment when editing your films.

Carter ORDER THROUGH CARTER DISTRIBUTORS EVERYWHERE
Carter Motor Co., Chicago 47 •

Carter Motor Company MAIL THIS NOW
2657 N Maplewood Ave
Chicago 47, Illinois

Please send illustrated circular and full information on Carter Converters

Name_____

Address_____

City_____ State_____

CINEKAD
JUNIOR TRIPOD DOLLY

This collapsible three-wheel tripod dolly is especially designed to meet the demand for convenient mobility of cameras on location or in the studio

Dolly can be used with any professional or semi-pro tripod

The tripod is fastened firmly to the dolly by a clamp at each leg tip

The special individual caster locking system makes it possible to lock either two or three wheels in a parallel position, enabling the dolly to track in a straight line for rolling dolly shots

Dolly folds quickly into a single compact, easy to carry unit, 23 inches in length weighing 14 lbs

Write for Prices and Literature

FRANK C. ZUCKER
CAMERA EQUIPMENT CO.
1600 BROADWAY NEW YORK CITY

low, with delicate blue lighting, becomes the focal point in a deeply morbid setting. There is not a distracting or superfluous color note in this scene; everything is aimed at a single overpowering impression of stark tragedy.

When Usher makes the announcement to his friend of his sister's death, he stands before a cold blue window. One side of his face catches illumination from the warm candle glow within the room, while the other side is dramatized symbolically with the blue of waning daylight that reaches him from the window. The effect is ghastly. The color supports and emphasizes the resolution of the man and the import of the words he speaks.

The room in which the coffin is set up before the burial is arranged so that the severe gray coffin occupies the center of a virtually empty stage. Again the walls are shrouded in deep brown drapery. The polished wooden floor is bare. Rich brown satin looped draperies frame the room like a proscenium arch on the camera side. Dead center and in the foreground is a bare table holding a candelabra with three tall burning tapers. The coffin rests upon a low stand covered with purple satin. The same purple which in "The Nativity" gave to one of the kings a regal splendor is here employed in a different relationship as a final tragic accent. When the coffin is removed, that purple cloth seen through the tall candles in a dark-walled area of emptiness conveys the ultimate loneliness.

The mottled and moisture-streaked gray stone walls of the passageway to the dungeon are illuminated by blue light which casts bars of shadow upon the stone floor as it filters through a grating. By the dungeon door is a burning torch which illuminates this area with warm light. The torch is carried into the stone-wall dungeon and casts upon this wierd burial scene a flickering amber light. Here is an instance where warm light is used to achieve an eerie effect.

The last interior setting in the drama is the friend's bedroom where the mounting tragedy reaches its final resolution. This room reveals the antiquity of the mansion. Though dark brown wall hangings are liberally used, the wall areas of bare gray stone that are purposely left uncovered give to the room a medieval character. The huge mass of a canopied antique Chinese bed fills one corner of the room. It half recedes into shadow, but the rich red glow of its intricately carved surfaces provide the one note of oppressive splendor in the uncompromising austerity of the chamber. The bed and one table near it are covered with deep violet satin. A small chair and commode complete the furnishings. The two tables support candles which are the sole light sources for the setting. A small medieval window looks out on the blackness of night. Gray-green drapery is used in the corner behind the bed to give a little definition to this unit in the shadowy room. Under normal illumination the monumental structure of the bed could dominate the room and dwarf the actors. By the chiaroscuro treatment it was held to its proper subordinate function. With these colors and color values, the dramatic spotting of simulated candle illumination from opposite sides of the room could be employed to ultimate dramatic advantage. Intense light and shadow contrast, with forms emerging from obscurity into highlight, yielded the full measure of mystery and tragic climax.

Flame is used as a dramatic color device throughout the picture. It ranges from the cheerful open fire in the friend's study through candle and torch light, the the flaming frenzy of the final sequence. Here the color of fire intensifies until it becomes a blood-red leaping fury, symbolizing the devouring evil that consumes the doom-ridden House of Usher.

I trust that the above discussion of settings has clarified the interpretation of a given vehicle through the means of carefully selected color, and that it has demonstrated the development of individual sequences within the over-all mood requirements of the picture. To borrow a term from music, we may define this procedure as "variations on a theme"—color variations upon a master color theme.

Having analyzed color usage in settings, we are now free to consider its function in the second great category in which it is employed—costume. In the general introductory discussion of this subject I have stated the many factors to be understood and resolved in dealing with color in costuming. I'll not repeat them, but illustrate their application in the costumes of the three principal characters in "Usher."

The friend, who is primarily a spectator in this wierd tale, is a normal, socially adjusted human being. He serves as the dramatic foil for the abnormal intensity of Usher. To help establish his character and circumstances and to contrast him with Usher and Usher's morbid environment, he was dressed in light gray breeches and cool green double breasted tail coat. The light gray has both elegance and freshness. The green is cool and soothing. It has normal, healthy connotations. The white shirt has a ruffled front and cuffs. The neckcloths are either white or navy blue and tied with flowing ends. After the sister's death, a black satin, severely knotted neckcloth is substituted. In the last sequence the

friend removes his coat to reveal a green striped waistcoat and white shirt with full gathered sleeves. This white further accentuates his final dramatic involvement in the plot and helps to spotlight him in the dark room. In the walk through the woods at the beginning of the film, a navy blue cape gave him definition in the gray landscape; in the flight sequence, the white shirt underlines his unthinking panic and dramatizes him in the night.

Usher's sister, the Lady Madeline, is garbed in the two most dramatically potent of all colors, actually not colors at all—black and white. Neither should be overlooked in a color production, for their power to dominate an entire color ensemble renders them invaluable. Both are difficult to illuminate. Black literally abhors light, and white reflects it to such a degree that at times it can "burn out." This should be no deterrent to their use, however, for careful and clever light manipulation can solve both problems. In her first appearance the Lady Madeline wears a gown of severe black taffeta. She instantly becomes the enigmatic embodiment of Usher's morbid obsessions, her appearance a foreshadowing of tragedy. She does not again fully appear until the final sequence of the picture when the door of the friend's bedroom slowly swings open to reveal her standing on the threshold in a flowing white shroud illuminated by icy blue light. One can well imagine the "shock" impact of this vision. She incorporates all the chilling horror of the tomb and the terror of night and the unknown.

When, after an ample period of suspense, Usher is first revealed, he is seen in a rich, cold blue dressing gown against the mellow golden carving of an antique screen. The luxury of settings and attire establish harmony between the man and his environment. Both reveal much of his circumstances and tastes. The blue, however, contrasts with the golden tones in such a way as to dramatize the figure. This blue is cold with a three-dimensional quality. The fabric is such that the color takes on a silver

(Continued on Page 116)

COMPLETE MOTION PICTURE EQUIPMENT

RENTALS

FROM ONE SOURCE

CAMERAS

MITCHELL
16mm
35mm Standard
35mm Hi-Speed
35mm NC • 35mm BNC

BELL & HOWELL
Standard • Eyemo • Filmo

ARRIFLEX
16mm • 35mm

WALL
35mm single system

ECLAIR CAMERETTE
35mm • 16/35mm
Combination

AURICONS
all models single system
Cine Kodak Special
Maurer • Bolex
Blimps • Tripods

DOLLIES
Fearless Panoram
Cinemobile (CRAB)
Platform • Western
3 Wheel Portable

LIGHTING

Mole Richardson
Berdwell McAllister
Colortran
Century
Cable
Spider Boxes
Bull Switches
Strong ARC-Trouper
10 Amps 110V AC 5000W-2000W-750W
CECO Cone Lites (shadowless lite)
Color Clip Lites
Barn Doors
Diffusers
Dimmers
Reflectors

EDITING

Moviolas • Rewinders
Tables • Splicers
Viewers (CECO)

GRIP EQUIPMENT
Parallels • Ladders
2 Steps • Apple Boxes
Scrims • Flags
Gobo Stands
Complete grip equipment

SOUND EQUIPMENT
Magnasync-magnetic film
Reeves Magicorder
Mole Richardson Booms and Perambulators

Portable Mike Booms
Portable Power Supplies to operate camera and recorder

WE SHIP VIA AIR, RAIL OR TRUCK

FRANK C. ZUCKER
CAMERA EQUIPMENT CO.

Dept. A- 2-19 • 1600 Broadway • New York City

MILLER FLUID ACTION HEAD

— Semi-Hydraulic Operation —

New Improved Senior Model "C"

"This is NOT a friction type head."

Ideal for:
★ Cine-Special, Pathe,
★ Bolex, Arriflex-16,
★ B & H, Cine-Voice, etc.

Even a beginner can make beautiful pans.—TRIPODS and ADAPTER PLATES available—

Money Back Guarantee
— 10-DAY FREE TRIAL —

Terms: Prepaid in U.S. if payment is enclosed. C.O.D. Customer pays shipping and C.O.D. Charges.

$113.40

In Calif. add 3% Tax

U. D. PHOTO ENGINEERING
P. O. Box 25761, Los Angeles 25, California

MATTES • INSERTS • FADES • DISSOLVES • WIPES • SUPERIMPOSURES

SPECIALIZED TITLES

OPTICAL EFFECTS
35mm or 16mm

RAY MERCER & CO.

BLACK and WHITE or COLOR

ESTABLISHED 1928

PHONE OR WRITE FOR SPECIAL PHOTOGRAHIC EFFECTS, OPTICAL CHART & INFORMATION

4241 NORMAL AVE., HOLLYWOOD 29, CALIF. • NOrmandy 3-9331

HOLLYWOOD STUDIO PRODUCTION

Feature and television film productions for which members of the American Society of Cinematographers were engaged as Directors of Photography during the past month.

AMERICAN SOCIETY OF CINEMATOGRAPHERS

FDUNDED January 8, 1919, The American Society of Cinematographers is composed of the leading directors of photography in the Hollywood motion picture studios. Its membership also includes nonresident cinematographers and cinematographers in foreign lands. Membership is by invitation only.

●

ARTHUR MILLER, President
SOL HALPRIN, First Vice-President
WILLIAM SKALL, Second Vice-President
ALFRED GILKS, Third Vice-President
WALTER STRENGE, Treasurer
CHARLES G. CLARKE, Secretary
ROBERT DE GRASSE, Sergeant-At Arms

BOARD OF GOVERNORS

JOSEPH BIROC
GEORGE FOLSEY
BURNETT GUFFEY
WINTON HOCH
HAL MOHR
RAY RENNAHAN
LEON SHAMROY
PHILIP TANNURA

ALTERNATE BOARD MEMBERS

ELLIS CARTER
PAUL EAGLER
FARCION EDOUART
IRVING GLASSBERG
MILTON KRASNER
ERNEST LASZLO
ROBERT PITTACK
JOHN SEITZ
JAMES VAN TREES
PAUL VOGEL

ALLIED ARTISTS

● ELLSWORTH FREDERICKS, "Cattle King," (Eastman Color, CinemaScope), with George Montgomery and Richard Eyer. Harmon Jones, director

COLUMBIA

● BENJAMIN KLINE, "Rock Around the Clock," with Johnny Johnston, Bill Haley and His Comets, Alix Talton, and John Archer Fred F Sears, director

● RAY RENNAHAN, "The Seventh Cavalry" (Technicolor) with Rodolph Scott, Barbara Hale, Leo Gordon, Harry Carey, Jr Joseph H Lewis, director

METRO-GOLDWYN-MAYER

● JOHN ALTON, "The Catered Affair," with Bette Davis, Ernest Borgnine, Debbie Reynolds, Barry Fitzgerald, Rod Taylor Richard Brooks, director

● GEORGE FOLSEY, "The Fastest Gun Alive," with Glenn Ford, Jeanne Crain, Broderick Crawford, Russ Tamblyn, Leif Erickson Russell Rouse, director

● PAUL VOGEL, "High Society," Vista Vision, Color) with Bing Crosby, Grace Kelly, Frank Sinatra, Celeste Holm, John Lund Charles Walters, director

● JOSEPH RUTTENBERG, "Somebody Up There Likes Me," with Paul Newman, Pier Angeli Eileen Heckert Robert Wise, director

PARAMOUNT

● LOYAL GRIGGS, WALLACE KELLEY, PEVERELL MARLEY, "The Ten Commandments," (Technicolor, VistaVision) with Charlton Heston, Anne Baxter, Yul Brynner, Edward G. Robinson and others. Cecil B DeMille, producer-director.

● DANIEL FAPP, "Pardners," (Technicolor, VistaVision) with Dean Martin, Jerry Lewis, Lori Nelson. Norman Taurog, director.

REPUBLIC

● ERNEST HALLER, "Dakota Incident," (Trucolor) with Linda Darnell, Dale Robertson, John Lund, Ward Bond Lew Foster, director

20TH CENTURY-FOX

● LEON SHAMROY, 'The King and I," (Color, CinemaScope) with Deborah Kerr, Yul Brynner, Rita Moreno Walter Lang, director.

● LEO TOVER, "The Revolt of Mamie Stover," (Color, CinemaScope) with Jane Russell, Richard Egan, Agnes Moorhead, Joan Leslie. Raoul Walsh, director

● CHARLES G. CLARKE, "The Man in the Gray Flannel Suit" (CinemaScope, Color) with Gregory Peck, Jennifer Jones, Frederick March, Ann Harding, Nunnaly Johnson, director

● JOSEPH MACDONALD, "Hilda Crane," (CinemaScope, Color) with Guy Madison Jean Simmons, Jeane Pierre Aumont, Peggy Knudsen Philip Dunne, director

● LUCIEN BALLARD, "The Proud Ones" (CinemaScope, Color) with Robert Ryan, Virginia Mayo, Jeff Hunter Robert Webb, director

UNIVERSAL-INTERNATIONAL

● RUSSELL METTY, "Written on the Wind," (Technicolor) with Rock Hudson, Lauren Bacall, Robert Stack Douglas Sirk, director.

● IRVING GLASSBERG, "Johnny Salvo," with Ray Danton, Leigh Snowden, Grant Williams. Jack Arnold, Director

● WILLIAM DANIELS, "The Gentle Web," (Technicolor) with Esther Williams, George Nader, Edward Andrews. Harry Keller, director

● MAURY GERTSMAN, "Behind the High Wall," with Tom Tully, Sylvia Sidney and Betty Lynn. Abner Bieberman, director

WARNER BROTHERS

● ROBERT BURNS, TOM TUTWILER, "The Spirit of St Louis," with James Stewart. Billy Wilder, director.

● JOHN SEITZ, "Santiago," (Warnercolor, widescreen) with Alan Ladd, Rossana Podesta, Lloyd Nolan. Gordon Douglas, director.

● BORIS KAUFMAN, "Baby Doll," (Widescreen) with Karl Malden, Carroll Baker, Eli Wallach. Elia Kazan, producer director

INDEPENDENT

● GORDON AVIL, "Rebel in Town," (Bel Air Prods.) with John Payne, Ruth Roman, J Carrol Naish Al Worker, director.

● SAM LEAVITT, "Count the Dead," (Nacirema Prods.) with Howard Duff, Gloria McGehee, Dick Foran Lee Sholem, director

● JAMES WONG HOWE, "Death of a Scoundrel," (Chas. Martin Prods.) with George Sanders, Yvonne de Carlo, Zsa Gabor, Nancy Gates Charles Martin, director.

● JOSEPH BIROC, "Fragile Fox," (Associates & Aldrich Prods.) with Jack Palance, Eddie Albert, Lee Marvin, Robert Strauss Robert Aldrich, producer director.

● ELLIS W. CARTER, "Flight to Hong Kong," (Sabre Prods.) with Rory Calhoun, Dolores Donlon Joseph Newman, producer-director.

● SAM LEAVITT, "Step Down to Terror," (Harmon Prods.) with Anthony Quinn. Carol Dhmart, Arthur Franz, Joy Robinson Harry Horner, director

TV FILM PRODUCTION

AMERICAN NATIONAL

● FLOYD CROSBY, "TV Reader's Digest," (Alpha).

● CHARLES VAN ENGER, "Big Town," (Mark Stevens).

COLUMBIA

● GERT ANDERSON, "Ford Theatre," (Screen Gems).

GENERAL SERVICE

● ROBERT PITTACK, "Private Secretary" (Chertok).

● PHILIP TANNURA, "Burns & Allen Show," (McCadden)

● HARRY WILD, "Bob Cummings Show" (McCadden).

● JAMES VAN TREES, "The People's Choice, (McCadden).

GOLDWYN

● William Whitley, "Crossroads," (Federal TV).

● Norbert Brorine, "The Loretta Young Show," (Lewislow Films).

● George Clemens, "Schlitz Playhouse of Stars," (Meridian).

KTTV

● Kenneth Peach, "Fury," (TPA).

KLING

● Walter Strenge, "The Answer,' (Family Films).

MGM

● Harold Marzorati, "MGM Parade," (MGM)

MOTION PICTURE CENTER

● Karl Freund, "I Love Lucy," "December Bride," and "Our Miss Brooks," (Desilu).

● Robert DeGrasse, "It's Always Jan," (Jaynard) and "Make Room for Daddy," (Marterto).

● Harold Wellman, "Wyatt Earp," (616).

HAL ROACH

● Lucien Andriot, "It's a Great Life," (Raydic) and "The Life of Riley," (Hal Roach).

● Lothrop Worth, "The Great Gildersleeve," (Hal Roach).

20TH-FOX

● Karl Struss, "My Friend Flicka,' (TCF-TV).

● Ed Du Pan, "Crackup" (20th Fox Hour) (TFC-TV).

● Lloyd Ahern, "In Times Like These," (20th Fox Hour, TCF-TV).

WARNER BROTHERS

● Harold Stine, "Casablanca," (Warner Bros. TV).

● Carl Guthrie, "Cheyenne," and "Siege," (Warner Bros. TV).

MISCELLANEOUS

● Virgil Miller, "You Bet Your Life," (Filmcraft).

● Daniel B. Clark, "People Are Funny," (Guedel).

● Mack Stengler, "Liberace," (Guild).

● Sam Leavitt, "Knight of the South Seas," (Lovina Prod.).

● Henry Sharp, "Sheena, Queen of the Jungle," (Nassour).

● Gilbert Warrenton, "Sergeant Preston of the Yukon," (Skinner)

● Jack McKenzie, "Frontier," (Tomodn)

● Guy Roe, "Gangbusters," (Visual Drama).

ONE CASE ONLY

SYNCHRONOUS MAGNETIC FILM RECORDERS

17.5mm RECORDER $1550

Operates at 90 feet per minute, for use with 35mm cameras.

16mm RECORDER $695

Operates at 36 feet per minute, for use with 16mm cameras. New halders for 1200-foot reels available as accessory.

Kinevox Magnetic Recorders have less than 2% intermodulation distortion through the complete channel, from microphone input to film playback at full operating level.

FILM PHONOGRAPH
Fast stop-start. Instant reverse. Uses 17.5mm (split 35mm) perforsted film. Operates at 90 feet per minute.

AMPLIFIER-MIXER
Four input channels. Complete with power supply in one case Weight 40 pounds Four-position dialogue equalizer. Less than 1% intermodulation distortion at full output.

PORTABLE POWER SUPPLY
500 watt output. Contained in two easily-handled cases. Battery weight 62 pounds. Generetor weight 72 pounds.

FILM READER
Film moves over platform for easy marking. Accommodates 17.5mm, 16mm or ¼" tape. Also available in 35mm.

FILM SPLICER
Butt splicer for 35mm and 17½mm magnetic film. Employs perforated tape for joining medium. Insures perfect recording in the splice area.

SYNCHRONIZING SLATER
Provides legible automatic slating and synchronizing. Adapters for all cameras.

EXPORT DEPARTMENT
FULL FACILITIES FOR HANDLING OF FOREIGN SALES. WRITE FOR INFORMATION

KINEVOX

DIVISION OF ELECTROMATION COMPANY

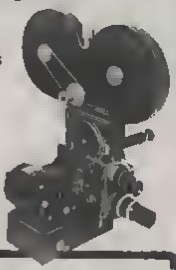
116 S. HOLLYWOOD WAY • BURBANK, CALIFORNIA • Victoria 9-3291

Now! A 400ft. Magazine For Your BOLEX H-16

Complete with Synchronous Motor and Base

•

Includes Installation and Case



Permits continuous 400 ft run of 16mm film—the 200 ft daylight loading spool may be used in the 400 ft magazine The 100 ft spool can be used in the camera without removing external magazine Fully guaranteed Can YOU shoot a continuous wrestling match prizefight or football game? If not write for complete information or see your Bolex dealer

Ask about our Rock-Over Camera Base and Synchronous Motor.

TOLEDO CINE ENGINEERING
1309 Milburn Ave Toledo 6, Ohio

Here's The World's Finest

HI-SPEED LENS

1½"-f/1.0

MOVIAR

for 16mm Cameras

Get this rare combination of optical and mechanical excellence It's coated to reduce internal reflections Gives you needle sharp focusing from Infto Close-up Has "C" type screw-in mount for standard 16mm cameras Unconditionally guaranteed

Special ... $249

Write for complete lens list FREE 58th Annual 96 page Photo Equipment Catalog Dept A C

BURKE & JAMES, INC. 321 S Wabash Ave., Chicago 4, Ill.

Reversal PROCESSING

Reversal specialists for over a decade Our long experience insures superior quality Electronically controlled machines keep temperatures constant within 2 of one degree National Brilliantone Cine prints are the finest available Write for free catalogue

CONTACT PRINTING S & W DUPLICATING
WORK PRINTS SOUNDCHROME DUPLICATING
EDGE NUMBERING VACUUMATING

All work expedited at no extra charge

NATIONAL CINE LAB
Box 4425 Washington 17 D C

THE DRAMA OF COLOR IN CINEMATOGRAPHY

(Continued from Page 113)

sheen in highlight and recedes into great depths in shadow The emotional connotations of this blue are, in this setting, not tragic but melancholy. We must leave ourselves room for intensifying the tragic development of the character in subsequent scenes.

The red smoking jacket employed in the following sequences further develops the picture of informal elegance, of a semi-invalid gentleman in the seclusion of complete retirement The deep red of the velvet jacket and the collar and cuff facings of ruby satin are dramatically potent Combined with the dark gray breeches, the white shirt, and a severe black satin neckcloth, these reds produce an effect of conservative richness. As can readily be seen, the contrast with the friend's light gray and cool green are extreme These two men are placed in sharp dramatic opposition. This is particularly vivid in the jewel-toned painting sequence.

After the sister's death Usher is dressed in a formal black frock coat. His first appearance in this garb is in a scene where his face is never shown —in the death bed sequence Here he is a grim black figure amid the deep, smothered browns of a room of death When, standing in utter isolation before the blue window, he announces the sister's decease to his friend, the severe black of his costume powerfully underlines the irrevocable tragic turn of the story Usher becomes at that moment the personification of desolate loneliness and stark tragedy. Throughout the following sequences this black, relieved only by the touch of white at neck and wrists emphasizes the man's complete divorcement from reality He is clothed in secrecy

Not until the final sequence in the drama does he reappear in the blue dressing gown This indicates a time lapse, a partial relaxation in privacy of the frozen constraint of the man in the presence of his friend, and the intention, though evident inability, to retire for the night Most of all, this blue provides a color with high dramatic potentialities for the chiaroscuro treatment and the emotional range of the final scenes The man's inner tension explodes into the horror and panic of hallucination, subsides into a numbed, silent awareness of what transpires within the dungeon tomb, then rises on a note of terror that has the penetrating impact of a scream: then the swift violence of death The particular blue with which we worked was versatile enough to support and emphasize this full range of mood and emotion

In a sense I regard "Usher" as a fortunate choice for demonstrating the value of color in a motion picture What would be obvious in a colorful production can be the more eloquently illustrated through the refined usages required by a so-called black-and-white vehicle The story-telling qualities alone can justify the use of color. It is invaluable in establishing time, locale and material circumstances; in clarifying story progression; in analyzing, developing and contrasting character Its psychological implications have infinite scope Its visual persuasiveness render it an irresistible means of communication Color is the most stimulating factor in visual experience It is that potent force which supports and strengthens the other essential elements, and thus renders the motion picture a complete medium for creative expression. It imparts vividness to the final emotional impact and intensifies the "flavor" or mood impression so that it will linger within the memory of the viewer long after the production has had its brief period of life upon the screen.

PREPARING THE SCRIPT

(Continued from Page 96)

progressively higher than the last. Between each of the peaks there is a lull or temporary letdown in dramatic intensity. These lulls are necessary in order to give the audience a chance to "catch its breath," psychologically speaking. They also provide "light and shade" in the changing pattern of the story.

The ending of the screen story also requires special script writing attention It is here that all loose ends of the narrative are tied securely together and formed into a final resolution. The audience should not be left hanging in the air—rather, it should experience a feeling of satisfaction and finality at the conclusion of the film. Once the ending of the story has been initiated, the story should move steadily forward to the final fadeout, and not pause to go off on tangents or involved explanations

The basic element of the dramatic screenplay is conflict. Without a certain opposition of characters and elements there can be no drama In other types of films, comparison and contrast may take the place of conflict in the dramatic film. But it is a proven fact that an audience will soon tire of a screen story that runs too smoothly.

Another factor of prime importance in script writing is motivation. An audience requires a reason or explanation for everything that happens on the screen. It wants to know *why* a character acts the way he does. There must be a logical reason behind every action. The efficient script-writer makes these explanations logically during the exposition of the story.

Reaction shots play a big part in story motivation. These are quick cuts, in closeups, to others in the cast showing their reaction to whatever situation is taking place. Reaction shots stimulate human interest and bring the audience closer to the story. The audience will tend to react in the same way as does the character shown in the film and will more nearly feel the impact of the screen situation.

Parallel action is a constructive cinematic device which indicates several phases of action taking place at the same time, and is accomplished by repeated cutting back and forth from one situation to the other—first in the script and later at the editing table. When skillfully handled, parallel action is very effective in building suspense.

The most important thing the script-writer has to learn in attempting dramatic construction is what to leave out. Anything that does not contribute to the atmosphere, mood, or action of the story should be deleted. Cut out the deadwood that clutters up the first draft of the script and the salient facts will stand out much more effectively.

In planning the individual scenes of the script, variety in "point of view" is essential. By point of view we mean camera angle and image size, both of which are motivated by the subject matter of the scene. There should always be a reason why a certain angle or composition is used; a shot should never be just thrown into the script.

Scene composition depends upon the placement of the camera in relation to the elements within the scene, and while this is quite commonly thought of as a function of the director of photography, some thought toward composition should precede the description of the scene in the script and be briefly detailed. What the cinematographer can do to improve upon it later, when the scene is being shot, is something else again.

It should be remembered that the audience sees only as much of a situation as the camera shows. For this reason, the general locale should be well established at the beginning of the story so that the audience may remain reasonably orientated as the rest of the story unfolds on the screen.

Image size is a relative term. Obviously a closeup of a grain of wheat would be executed differently than a closeup of a person or a structure, or other individual object. For this reason, image size can be described only in rather general terms.

In the following paragraphs other important descriptive terms used in script writing and film production will be analyzed and their place in the script described.

The big closeup (sometimes referred to as an insert—although there are other types of inserts) is a very large closeup of an object that completely fills the screen. When the subject is a player's face, the frame cuts at the chin and at at top of the head, and may even show just a portion of the face, such as the eyes or mouth. This is a highly dramatic shot when properly used.

A closeup is a conventional shot cutting from the top of the shoulders to a few inches above the head when the subject is a person. Actually the closeup is the most emphatic of all shots. It focuses attention down to a sharp point and should be used where some small action or expression is to be pointed up dramatically.

The two-shot, as the term suggests, is used to show two people together in a scene and rather close up. The frame cuts them about from the level of the elbows to a few inches above the head. The medium shot is used to shew people or objects from a medium distance and giving some idea of the background also. It is about right for scenes showing three people together, cutting them about at the knee. Medium shots should be alternated with long shots and closeups

The long-shot, sometimes called the full-shot may mean anything from an overall view of a group of people to a panoramic shot of vast areas of terrain with great masses of people, animals etc.

Obviously, there are many other types of shots falling between those described above, but these are the most important standard shots, and they can be easily varied

We shall not go into great detail here regarding the actual format of the motion picture script, as the form varies with the type of film that is to be made. A few general pointers, however, may prove helpful.

Each individual scene should be numbered, and the heading should include such information as the locale, whether the scene is an interior or exterior, the time of day, image size and angle, and any other technical data that will be helpful to the director and the cameraman—as for example:

"Scene 29: Interior mountain cabin —Night—

Medium shot—Shooting toward fireplace." The action is then described in detail, with all camera directions set off in capital letters. If it is a direct sound

VIDEO FILM LABORATORIES

Established 1949

Complete 16mm laboratory service for Producers using the Raversol Process

Also 16mm Negative and Positive developing.

★

WRITE FOR PRICE LIST

350 West 50th Street

New York 19, N. Y.

TELEPHONE: JUdson 6-7196

RUBY CAMERA EXCHANGE

Rents . . . Sells . . . Exchanges

●

Everything You Need for the

Production & Projection

of Motion Pictures Provided by a Veteran Organization of Specialists

35 mm . . 16 mm. Television

IN BUSINESS SINCE 1910

729 Seventh Ave., New York 19, N. Y.
Tel.: Circle 5-5640
Cable address: RUBYCAM

16 m.m. SERVICES

COLOR DUPLICATING

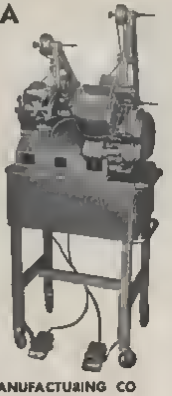
SOUND RECORDING

●

FISCHER PHOTOGRAPHIC LABORATORY INC.

1729 N. MOBILE AVE., CHICAGO 39, ILL.
PHONE MESSIMAC 7-5316

GEO W COLBURN LABORATORY INC.
104 NORTH WACKER DRIVE • CHICAGO 6
TELEPHONE STATE 2-7310
8 and 16mm
SERVICES

MOVIOLA
FILM EDITING
EQUIPMENT
16MM - 35MM
• PICTURE SOUND Photo and Magnetic
• SYNCHRONIZERS
• REWINDERS
One of the new series 20 Moviolas for picture and sound
Write for Catalogue

MOVIOLA MANUFACTURING CO
1451 Gordon St • Hollywood 28 Calif

picture, the dialogue also appears headed by the speaker's name Blocks of type describing action are usually indented about five spaces closer to the left than blocks of dialogue, so as to clearly differentiate between the two

Where the picture is to be narrated, the script pages are divided into two parts vertically, with the action described in the left half and the corresponding narration in the right half

Scenes, when typed in screenplay form, should not be crowded too tightly. Margins should be left ample for making notes and script changes. The whole script should be bound or stapled together within a sturdy cover bearing a label inscribed with the title

PREPARATION OF SHORT TECHNICAL FILMS

(Continued from Page 99)

When filming a PPI at sound speed we have found it advisable to use a lens opening of at least f/1.4 or f/1.9 when using Tri-X. Under these conditions the indicator controls are adjusted to give as bright a picture as possible without sacrificing the focus or clarity of the image. Deflection modulated indicators such as A-scopes or J-scopes are photographed on the same film at f/4.0 or f/5.6, depending upon the repetition rate of the pattern, with all scope controls placed at their normal settings.

To enhance the realism of films describing equipment in development, a great deal of footage is often comprised of motion pictures taken during the actual experiments for data purposes. Since these are quite often photographed well in advance of the time that the productions themselves are planned and are, in fact, taken for entirely different purposes, every effort is made to obtain film at the time the experiments are performed that will be suitable for inclusion in future technical motion pictures Consequently the engineers involved try to obtain photographic coverage of the entire experiment that is as complete as possible. The filming of the data is planned so that the entire sequence of the experiment will be adequately described Of course any special effects that may prove helpful at a later date to explain the experiment must be planned in advance. For example, in showing radar presentations, such as the one illustrated in Fig. 3, it is often convenient to point out a specific target on the scope When using Tri-X film a pointer or finger (illuminated by a 60 watt light bulb placed at a distance of one or two feet to the side of the indicator so that its light does not fall directly on the scope) as shown in Fig. 2 is satisfactory for this purpose. Furthermore, this procedure is much simpler than producing an optical effect when the film is printed.

At each location where equipment is being adjusted and tested, live action motion pictures are filmed whenever possible When covering a flight test, motion pictures of the installations, engineers making measurements, and aircraft involved in the tests taking off, in flight and landing, are very helpful in providing good continuity in technical films, not only for the purpose of technical explanation but in documenting the work from an historical approach. Although an engineering test program is usually pressed for time, satisfactory "local color" sequences can be filmed with a minimum of effort provided that they are planned in advance.

After the negative film is processed and edited in the plant, two positive prints are obtained. The first, on double perforated silent film stock, serves as the version used for presentations with extemporaneous commentary away from the plant. To the second print, on single perforated film, a magnetic sound track is added on which the commentary is then recorded in one of the conference rooms at the Sperry plant, using a Bell & Howell model 202 sound projector. An unpretentious sound track consisting of narration without music or sound effects is usually satisfactory. The sound-on-film version in this form is very convenient to use since changes in the commentary can be made at any time by erasing the sound track and then rerecording If necessary an optical sound version may be made at a later date by recording an optical sound negative which is used in making the release print from the magnetic sound track.

One example of the use of the above techniques is a ten-minute technical film recently produced at Sperry for presentation to customers. Exclusive of security notices, title, and "the End" this film contained 19 scenes Of these, 14 scenes consisted of all or parts of still photographs and drawings. A total of five fairly simple drawings and photographs were used to obtain these fourteen scenes Three of the drawings were prepared especially for the film, the others were already available in satisfactory form Three live scenes in the laboratory and outside the plant were photographed for local color and transitional sequences. The two remaining scenes totaling about one-third of the footage of the completed film consisted of data that had previously been photographed on 16mm film in the course of

the laboratory experiments that were described in the film.

The preparation of the drawings, the actual filming, and the editing of the negative required a total of two working days. The printing of the film was done by an outside concern. The resulting film with extemporaneous narrative presented our ideas to the customer with simplicity and clarity.

It has been found that this type of quickly-produced, low-cost motion picture can be a great asset in explaining the operation of an electronic system to the customer. Such a film requires little more time to prepare than a slide-illustrated lecture However, the increased realism of the motion picture provides an additional understanding of the subject matter that frequently cannot be achieved by other means.

BLIMP FOR THE CAMERETTE

(Continued from Page 91)

shown at "F." The porthole "G" affords a view of the film footage counter which is mounted on the side of every Camerette magazine. The reflex viewfinder eyepiece is shown at "H." By means of the control "J," a reflex mirror is shifted into position to permit viewing through the port at "F." The window "K" gives visual access to the footage and diaphragm marks on the taking lens. The knob "I" provides for clamping a fill or eye light on top of the blimp.

The rugged construction, the ultimate in soundproofing, the carefully engineered external controls which assure smooth function of the camera, and the easy access to camera afforded by the simple retractable carriage, all promise to popularize still further the Camerette as a vital production tool in professional film making.

SHOOTING WITHOUT TRIPOD

(Continued from Page 89)

weather which prevailed recently "An excess of clouds almost daily made it a touch-and-go proposition to get the shots we wanted," said McGlone. "Normally Hawaii is bathed in sunshine and we aimed to give every shot that 'sunshiny' feeling—which is why we had to be patient and wait for the sun to shine through. Many a time we would have everything set, then kept our finger on the starting button—ready to shoot the scene within the brief moments when a cloud formation parted and let the sun through. As a result, a shooting schedule which was estimated at six weeks was stretched out to fifteen and required a second trip to the islands to complete."

At this writing, Ted Cate and Ed McGlone are back in Honolulu to shoot some additional footage for the United Air Lines' production, and to start production on a new 16mm color and sound film for Hawaiian Air Lines there. Of course, McGlone brought along his camera brace, because the new production calls for a great number of low altitude aerial shots also. "After seeing the results we got with it in shooting 'Here is Hawaii,' said McGlone, "the new gadget promises even wider use in all our future productions."

SHAKESPEARE

(Continued from Page 95)

used. Only one VistaVision camera was available during the location work, which made adequate coverage of the battle sequences practically impossible. So Heller supplemented this with three Arriflex cameras and had the footage from these blown up to VistaVision proportions and printed horizontally.

Back in the studio Heller aimed at a simplicity of color effect—"a kind of Eastman Color effect with Technicolor" he calls it—to match the deliberately artificial sets and studio exteriors. Shakespeare took such liberties with London geography that some form of stylization was obviously needed if the Tower was to be shown a mere stone's throw from Westminster Abbey.

Heller's admiration for Olivier is enormous. "He gave me a free hand," he explains, "but discussed the effects he was striving for before every shot. For Sir John Gielgud's scene in the cell he described his effect of near-darkness in his stage production and said he'd like me to try to imitate it. I didn't think it would work for the screen and suggested stronger atmosphere lighting In the morning we shot the scene Sir Laurence's way, and in the afternoon my way. Next day, after seeing the rushes, he told me at once that I'd been right."

The nightmare sequence before the battle presented several difficulties. Each of the "ghosts," wearing white make-up, was shot against a black velvet background. As the camera tracked back, a roll of black velvet was automatically unfurled to cover the tracking rails. Later these shots were superimposed over a painting of the background of tents, a laborious matter of mathematical calculation.

"Bichard III" is Olivier's masterpiece, a far greater triumph than "Henry V" or "Hamlet." One of the reasons is that Olivier has kept closer to his characters,

(Continued on Page 122)

It's easy with the

MERCER FILM PATCH

Descriptive Chart & Price List Mailed on Request

R. C. MERCER & COMPANY

4241 Normal Ave., Hollywood 29, Calif.
NOrmandy 3-9331

MAGNASYNC DUBBER

FOR SALE
Used Only 11 Hours
Latest Model

Studio discontinuing sound department offers 3-channel interlocked dubber in portable case Three 16mm edge track heads plus 2 additional center track heads Also remote control unit with counter, and equalizer

BOX 12320
AMERICAN CINEMATOGRAPHER

To Sell
THE MOTION PICTURE INDUSTRY
YOU
NEED
AMERICAN
CINEMATOGRAPHER

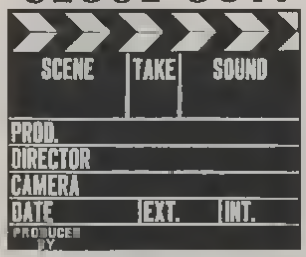
AMERICAN CINEMATOGRAPHER reaches all fields of 35mm and 16mm motion picture production—

- Major Hollywood Studios
- Television Film Producers
- Industrial Film Makers
- Educational Film Producers
- Amateur Movie Makers
- Film Laboratories
- Foreign Film Producers (67 countries)

Why be satisfied with anything less?

Write For Advertising Rates

CLOSE-OUT!



11"x14" CAMERA SLATE
with clapstick
ONLY $3.95 Please include postage
Hundreds sold to usual price of $8.75
FLORMAN & BABB
68 W 45, N Y 21, N Y

Scheibe FILTERS
In World-Wide Use
Produce moonlight and night effects in daytime + fog scenes + diffused focus and many other effects
Information mailed on request.
SCHEIBE FILTERS COMPANY
ORIGINATORS OF EFFECT FILTERS
P.O. Box 46R34, Hollywood 46, Calif

AMERICAN CINEMATOGRAPHER HANDBOOK
for the
PROFESSIONAL and AMATEUR
by
JACKSON J. ROSE, ASC

New data on Cineromo - Television photography - Background Projection - Zoom Lenses - Underwater Photography - Latensification - T Stops - Ansco Color - Eastmon Color - DuPont Color - Cameras - Projectors - Lenses - Filters - Charts - Tables - Ratings - Diagrams - Systems - Equolizers - Formulas, Etc.

THE ONLY HAND BOOK OF ITS KIND

PRICE $5.00

(California buyers please add 18c sales tax)

Book Department,
American Cinematographer,
1782 No Orange Dr,
Hollywood 28 Calif

Gentlemen: Enclosed please find $5.00* for which please send me a copy of THE AMERICAN CINEMATOGRAPHER HANDBOOK AND REFERENCE GUIDE

Name .....

Address.....

City.....Zone.....State.....

*If you live in California please include 18c sales tax — total $5.18

Booklets Catalogs Brochures

available fram equipment manufacturers

Color Temperature

An interesting descriptive 12-page booklet, "Introducing the Color Control Meter," introduces a valuable new instrument for measuring color temperature for photography that was recently announced by General Electric Company. As most cameramen know, the color of light affects the color balance of photography. This booklet explains why in detail and shows how the new G-E meter aids in determining color temperature and explains the corrective methods (via use of filters) for balancing a light source for a given color film.

Booklet is available through the Exposure Meter Information Bureau, General Electric Company, 40 Federal St., West Lynn, Mass.

★

Status of ASA Standards

"Status of Standardization Work on Photography and Motion Pictures" is title of brochure issued by American Standards Association, Inc., 70 East 45th Street, New York 17, N. Y. It comprises a comprebensive index and guide to the standards established by the ASA to date in the named fields ft is an ideal source of reference for those in the motion picture industry dealing with technical developments.

★

Camera Dolly Booklet

J G. McAlister, Inc., 1117 No. McCadden Place. Hollywood 38, Calif., has prepared an attractive comprehensive booklet illustrating its new completely maneuverable dual-steering Crab Dolly. The equipment is illustrated and described, is pictured in use in recent film productions. and there are diagrams illustrating the versatile manner in which the Crab Dolly may be operated on the sound stage to achieve shots of various types

★

Photolomp Dota

A new photo data booklet containing thousands of facts on films. flash bulbs and picture-making is now available from the Photolamp Department of General Electric Company, Nela Park, Cleveland 12. Ohio.

Titled "G-E Photolamp and Lighting Data Booklet" it consists of 40 pages, is of handy shirt-pocket size ($3\frac{1}{2}$"x$4\frac{1}{2}$") and is easily carried with the photographer's equipment. Information includes latest data on film speed ratings, guide numbers, flasb and flood lamp specifications and characteristics, and time light curves. A special feature is the explanation of "triangle lighting." Diagrams and photographs illustrate this method which experienced photographers recommend. Booklet is available from the company or from photo supply dealers

★

Core of 8mm and 16mm Films

A revision of the booklet, "The Handling, Repair, and Storage of 16mm and 8mm Films," has recently been issued by Eastman Kodak Company, Rochester 4. N. Y.

While of interest to any movie maker desirous of keeping his films in the best possible condition, booklet will prove of particular value to industrial and professional cinematographers as well as visual-education film users.

The twelve-page booklet, punched to fit the Kodak Photographic Notebook, covers possible causes of damage with suggestions for correction, inspection and repair procedures, and storage Both black-and-white and Kodachrome films are covered. Booklet is available without charge and request should be made to the Sales Service Division of the company.

★

DuPont Films

Descriptive and technical data relating to all DuPont motion picture films is boiled down and presented in concise form in a 12-page folder titled, "Tbere's a DuPont Motion Picture Film for Every Phase of Motion Picture Work," now available from the company's Photo Products Division.

The folder describes each film and gives recommended exposures, developing data, control gamma figures, lists standard roll lengths. describes the type of perforations for each film stock and the safelgbt to be used with each. Developer and reversal formulas are given and there are a number of charts relating to exposure and use of filters.

Copies of folder may be bad by writing the company at Wilmington 98. Delaware, or any of its district offices.

CLASSIFIED ADVERTISING

RATES: *Ads set in lightface type, 10c per word; minimum ad, $1.00. Text set in lightface capital letters (except 1st word and advertiser's name) 15c per word. Modified display format (text set in boldface type, capitals or upper and lower case) 90c per line. Send copy with remittance to cover payment to Editorial Office, American Cinematographer, 1782 No. Orange Drive, Hollywood 28, Calif. Forms close 15th of month preceding date of issue. No discount on Classified Advertising.*

STUDIO & PRODN. EQUIP.

S O E 30TH ANNIVERSARY SALE CONTINUES

CAMERA SLATES, with quick change white numerals and letters $25.00 value. New Surplus ..... $ 4.95

HARRISON K2 GLASS FILTERS 4" square in leather cases $9.00 value. New Surplus.... 4.95

CLOSE OUT SALE—NEUMADE STORAGE RACKS & CABINETS—SLIGHTLY USED
CUSTOM MADE RACKS—hold 240 400' 16mm REELS 72" high x 36" wide x 8" deep. Regularly $150.00 ..... 49.50
MM 102 CABINETS—hold 100 400'' 16mm reels 72" high x 20½" wide x 11" deep. Regularly $195.00 ..... 99.50
MM 184 CABINETS—hold 250 400' 16mm reels 72" high x 48" wide x 16" deep. Regularly $330.00 ..... 149.50

MICRO RECORD 16/35 PROCESSING OUTFITS, new demonstrators 136.95

1200' AURICON CINEVOICE PARRISH Conversion Has 400' and 1200' Mitchell magazines, heavy duty synchronizer, footage counter, Kinaesope shutter, zoom finder; advanced V A amplifier. $1903 value, nice condition 1255.00

AURICON MIKE BOOMS $170 value, like new 119.50

PLASTIC TITLING LETTERS & Symbols. Set of 80 characters ¾" high, 5 fonts, assorted colors 2.95

BRIDGAMATIC JR 16mm neg pos Developer. Includes airpump, drain pump, stapler. $1500.00 value. Good shape. 975.00

CAMEBETTE 35mm REFLEX w/4 Kinoptik Lenses- 3 magazines; battery motor; 110 AC motor, extension tubes automatic focus changer. Excellent 2750.00

MITCHELL 16 CAMERA w/3 Baller Lenses; 2-400' magazines; 12V motor; 35mm Mettebox sunshade carrying cases. Fine condition 2995.00

FEARLESS GEARHEAD 2 SPEED with wedge... 1025.00

AKELEY 35mm EDITING MACHINE, sound, picture preview. $3000 value 1295.00

NEW FRESNEL STUDIO SPOTS, lead wires, switch pipe clamp
2000 Watt ... $59.95 5000 Watt ... 99.95

10' TITLE ANIMATION STAND w/motorized zoom and stop motion. Completely wired with footswitches. Art Table takes largest work. $2500 value 975.00

RARDWELL McALISTER MULTIPLE FLOODLITES 3 Quadruple heads to hold 12 bulbs on rolling tripod stand. Orig Gov't Cost $180. Surplus 29.50

BM QUADLITE Heads only $4.95. Stands only 19.95

NEW RCA 400W FLUORESCENT FLOODLITES, takes 6 18" tubes 21" square. fit BM stands. $60.00 value 29.50

DEPUE PICTURE REDUCTION PRINTER, 35/16 Optical. Rebuilt 3995.00

SURPLUS 16mm REELS & CANS—HALF PRICE!
1400' reel or can $.75 Combination $1.44
1200' reel or can .50 Combination 1.12
800' reel or can .50 Combination .96
400' reel or can .29 Combination .57

NEW 11'x14' BOLLES SCREENS repos & pulleys met white 49.50

DOLLY TRACK with connectors, 5' 10' 15' lengths per ft 4.95
With self levelling screws—per ft 5.95

TRADES TAKEN Cable: SOSOUND **Dept. fx**

S O S CINEMA SUPPLY CORPORATION
602 W. 52nd St., New York 19 Phone PL 7-0440
Western Branch—6331 Hollywood Blvd., Holly'd, Calif. Phone HO 7-9202

16MM HOUSTON K 1A . . developing machines. For reversal or positive film. Complete with refrigerator units, temperature control, condensers, evaporators, thermostats, etc. BRAND-NEW, prices reduced! Write AIR PHOTO SUPPLY, Dept. C-1, 555 E. Tremont Ave., New York 57, New York.

PRECISION Magnetic Heads for Engineers - Industry
Erase - Record - Playback
STANCIL-HOFFMAN CORPORATION
921 North Highland Avenue
Hollywood 38, California

WE BUY, SELL AND RENT PROFESSIONAL AND 16mm EQUIPMENT, NEW AND USED. WE ARE DISTRIBUTORS FOR ALL LEADING MANUFACTURERS. RUBY CAMERA EXCHANGE, 729 Seventh Ave., New York City. Established since 1910.

STUDIO & PRODN. EQUIP.

OUR 26th YEAR ★ ★ ★ ★ SUPPLYING EVERYTHING PHOTOGRAPHIC AND CINEMATIC

HALLEN 17½mm Synchronous Magnetic Film Recorder, Model B-22, complete. List, new, $1,850.00. Special ..... $ 750.00

35mm DEBRIE CAMERA MODEL L/E featuring 1—28mm Schneider lens, 1—50mm Schneider F2 lens, 1—75mm Schneider F2.3 lens, Pilot Registration Pins, Direct focusing on ground glass, 6—400' magazines. Debrie gearhead tripod, Matt box. Value $2355.00 ..... 1250.00

RADIANT FOLD-PAK WASHABLE SCREEN unused 12'x16' New Value $215.00..... 135.00

ART REEVES SENSITESTER Combination 35mm and 16mm. Value $2,000.00. Special 595.00

B & H 16mm FILMO CAMERA Model 70-DA with 17mm f2.7 Wollensak, 1" f1.5 Dallmeyer, 2" f2.8 Schneider 3" f4.8 & H Telatar, and 6" f4.5 Telephoto Xenar Lenses; 2-400' Magazines; Motor; Wells Semi-Professional Tripod; Carrying Case. Value $1,695.00 Special 1150.00

STANDARD MITCHELL 12 V Variable Speed Camera Motor. Factory Guarantee..... 300.00
Also 110 V AC-DC MMotor with Techometer. Value $550.00 ..... 395.00

35mm B & H SINGLE SYSTEM SOUND CAMERA. Lenses: 40mm, 50mm, 75mm, 125mm Medalite galvenometer, amplifier, meter, Techometer. 2-1000' magazines, Tripod with Fmahead, quick release legs, carrying cases. Guaranteed..... 3250.00

SCHOEN PRINTER sound and silent, color, B & W. Features: 16mm picture & sound together, film capacity 1400 feet, 50' per minute; 12 adjustable light changes; AC-DC conversion unit 999.00

LACO INCANDESCENT LAMP 24" Reflector Five Kilowatts, Rolling Stand. Value $246.00. Special 110.00

35mm DUPLEX PRINTER Adapted for sound track, excellent for duping. Academy Aperture. Speed 250 pictures per minute per side. Two light change boards, 18 different lights each side, 21 scenes. Meter 110 V, perfect mechanical condition..... 875.00

MOLE RICHARDSON combination Microphone and Lamp BOOM, Rolling stand. Special..... 235.00

AURICON 200 ft., single system sound camera. Model 70; noise reduction amplifier with mike, cable, etc... 12 V converter 110-AC output 775.00

B & H 12V or 24V EYEMO & PILMO MOTORS. New. Value $142.00 ..... 95.00

MOLE RICHARDSON 2000 Spot, rolling stand. 110.00

RNLARGERS, EXCELLENT CONDITION, ELWOOD Auto focus, lens and stand. Size 5x7 ..... 235.00
Size 8x10 ..... 400.00

SPECIALIZING IN MOVIE AND TELEVISION SUPPLIES
TRIPODS, SYNCHRONIZERS. 16mm SOUND CAMERAS. lights lenses mikes booms, dollies, motors etc. New—Used. Reasonable prices. Cash for used equipment. Trades taken.

HOLLYWOOD CAMERA EXCHANGE, LTD.
1600 CAHUENGA SOULEVARD, HOLLYWOOD 28, CAL.

BELL & HOWELL 285 Filmosound projector, 14 watt amplifier, factory installed synchronous motor, 12" speaker in floor console. Projector in excellent condition. $725.00 value. $545.00. WESTERN CINE SERVICE INC., 114 E. 8th Avenue, Denver 3, Colorado.

CINE Ektar lenses set or individually. New condition. Half regular price. M. GRAYSON, Box 4, New York 53, N.Y.

AKELEY Silent Camera with heavy duty studio type gyro tripod complete, $600. DeVry 24 frames, proportional aperture, $100; Universal 200 ft., automatic dissolve, one frame shaft, $150; 16mm Cine Kodak rare model A good condition, sprocket machined for sound film, $100. KEN WOODWARD, 24 Lenox St., Uniontown, Penna.

FONDA 16-35mm negative-positive developing machine, rebuilt. METAL MASTERS, 5599 University Ave., San Diego 15, Calif.

EYEMO, single lens F2.5 Cooke, case. $215.00. Micro 16mm hot splicer, $35.00. C. SAGER, 3940 N. Oakland, Milwaukee 11, Wisconsin.

STUDIO & PRODN. EQUIP.

WALL S S 35MM. SOUND CAMERA

COMPLETE with Galvanometer, amplifier, portable power supply. 40-50-75 and 100mm lenses, erect image viewfinder complete front attachments. two 1000 ft. magazines. Balanced Tripod, necessary carrying cases. Overhauled. Guaranteed perfect. Reasonable.

CAMERA EQUIPMENT COMPANY
1600 Broadway New York 19, N. Y.

AUDIO AKELEY single system camera complete with Akeley sound head. Gyro tripod, 3 lenses, view finder, Mauer mixing amplifier. Complete with cables, power supply and W. E. microphone. CAMERA EQUIPMENT CO., 1600 Broadway, New York 19. N.Y. Cable: Cinequip.

WANTED TO BUY FOR CASH
CAMERAS AND ACCESSORIES
MITCHELL, B & H, EYEMO, DEBRIE, AKELEY. ALSO LABORATORY AND CUTTING ROOM EQUIPMENT.
CAMERA EQUIPMENT COMPANY
1600 BROADWAY, NEW YORK CITY 19
CABLE: CINEQUIP

GERMAN STILL 35mm cameras. Import your own. Save importers and retailers profits. (About 35%). Pay postmen duties. Examples: EXAKTA. The only completely versatile 35mm camera. With:
Automatic diaph. Zeiss Tessar F/2.8 ..... $159. (duty $22.)
Automatic diaph. Isco Westenar F/2.8 ..... $139. (duty $19.)
Automatic diaph. Schneider Xenon F/1.9 ..... $195. (duty $26.)
Automatic diaph. Zeiss Biotar F/2.0 ..... $199. (duty $26.)
Similar prices all other famous makes. All new. Latest 1955 production in original factory packing. Parcelpost and insurance included. No other charges. Pro payment through bank and inspection on arrival guarantees you complete satisfaction before we are paid. Experienced, (and objective) advisory service (please specify interests and requirements), and pricelists by return airmail. All transactions on money-back basis. WORLDPOST. TANGIER, MOROCCO.

BASS is headquarters for Arriflex 16, the new Zeomar 16 Cine Specials all models, Bell & Howell 70 DL, Bolex H16. Used 35mm Akeley #145 with Akeley Gyro tripod, matched pair Tessar 5 cm. F:2.7 lenses, magazines, case, extra lenses, $250.00. Used 35mm Debrie Parvo Model G, all metal, 32mm B&L W A. F:4.5, 2" Tessar F:2.5, 50mm Ultrastigmat F:1.9, 3" Goerz Hypar F:3.5, 12 cm C. Z. Tessar F:4.5, masks, pan end tilt tripod, magazines, carrying cases, $250.00. H-16 DeLuxe Bolex. 11" F:1.5, 0.7" F:2.5 W.A., filter slot, $275.00; Victor 5, 1" F:1.5, 3" F:3.5 Wollensak lenses $125.00. Cine Special II 1" F:1.4 Ektar optical finder reflex finder, Yale fader, Case $795.00. Best buys. Best trades always. BASS CAMERA CO., Dept. AC, 179 W. Madison St., Chicago 8, Ill.

ARRIFLEX 16 complete with 400' magazine and torque motor, Arri-gyro tripod, Kilfitt, 5, 6 200mm, Xenon 1 9/16 and 1, 5/25 Zoomar 16-S f:2.8 complete. $3500. TELECAST PROD., 912 Glen Oaks, Pasadena, Calif. SY 1-4534.

ARRIFLEX 35mm Model II, 32mm, 50mm, 75mm lens, motor, cable, lens shade, filter set, two 200 foot mags., aluminum carrying case, complete, $1475. M. S. GOULD, Box 2869, Hollywood 28, Calif. EDgewood 6-1947.

AURICON Pro single system sound camera equipped with Medalite S variable area galvenometer 25mm B&H Lumex F:1.9 lens, Auto Parallax View Range Finder and associate Auricon amplifier. Camera carrying case, iris fade on camera mike, all cables. In perfect condition and like new. $1350. F.O.B. ERNEST M. REYNOLDS, 165 East 191st Street, Cleveland 19, Ohio.

SYNCHRONOUS CAMERA Motors for Mitchell Standard. New 110 Volt 160 Cycle. $405.00 f.o.b. WANTED Mitchell Cameras equipment CARL NELSON. 164-12 110th Road, Jamaica 33, N.Y.

(Continued on Next Page)

Classified Ads

(Continued from Preceding Page)

STUDIO & PRODUCTION EQUIPMENT

SYNCHRONOUS 35mm Holmes sound projector complete $400 00 Regular Holmes new 35mm $250 00 Used Holmes 35mm $50 00 RUSSELL SCHLECHT 1840 Morse Avenue Chicago 26 Illinois

ARRIFLEX 16mm camera, 3 lenses turret mounted, tripod battery etc All new Perfect condition $2100 or best offer Box 1233 AMERICAN CINEMATOGRAPHER.

OUR TENTH ANNIVERSABY SPECIAL
2000 watt cone heads $90 00 750 watt cone heads, $50 00 SCHOEN & CROWE 403 W 47th St , New York 36, N Y

16MM MOVIOLA old model but in perfect shape 2"x3" picture screen separate optical or magnetic sound $975 00 VICTOR DUNCAN, 4828 Cleothe Ave St Louis 16 Missouri

IMMEDIATE Delivery Almost new Bell & Howell Model J 16mm printer JAMES 1096 Chapel Street, New Haven, Connecticut UNiversity 5 6604

FOR SALE

Animation Stand complete with camera light well, heavy base, exceptional rigidity in construction reverse camera take up movement 360° turn Acme peg system standard animation fields Currently being used in production $6500 00
Box 1235, AMERICAN CINEMATOGRAPHER

AURICON 600 with 400 ft magazine $1200 00 Pan Cinar 70 $380 00 (both used twice) Bell & Howell Specialist 2—400 ft 1—200 ft magazines electric motor Mitchell type viewfinder case $1495 00 BOB S CAMERA SHOP INC. 14006 Ventura Blvd , Sherman Oaks Calif Phone STate 4-1153

TRADE

TWO hundred foot Cine Special magazine to trade for one hundred foot magazine and cash differential CHARLES G MOYSE Box 1070 Fairbanks Alaska

WANTED

WE HAVE CUSTOMERS GALORE FOR

Cameras Dollies Lenses Lights
Movieolas Printers Recorders
Studio or Laboratory Equipment
WE ALSO TRADE OR TAKE CONSIGNMENTS SET YOUR OWN PRICE—WE'LL GET IT
Western Union-WUX New York, Phone PL 7-0440

S O S CINEMA SUPPLY CORPORATION
Dept fc Cable! SOSOUND
602 W 52nd Street New York 19, N Y.
Western Branch—6331 Hollywood Blvd. Hollywood, Calif , Phone HO 7-9202

IMMEDIATE CASH PAYMENT FOR CAMERAS AND EQUIPMENT

NEED EYEMOS (SINGLE LENS AND TUBEET) MITCHELLS, ARRIFLEX, DE BRIES B&H STANDARDS AND HI-SPEEDS WALLS, AKELEYS, CINE SPECIALS, AUEICONS, MAURERS, FILMOS ALSO BALTARS COOKES AND OTHER LENSES SOUND STAGE LABORATORY AND EDITING EQUIPMENT OF ALL TYPES REQUIRED PLEASE SHIP INSURED OR FORWARD DESCRIPTIONS AIRMAIL IMMEDIATE PAYMENT

GORDON ENTERPRISES • 5363 N. Cahuenga NORTH HOLLYWOOD, CALIFORNIA

WANTED FOR SPOT CASH

Used Mitchells Auricons—other Cameras
Movieolas—Editing Equipment—Projectors
Spotlights—Sound Equipment

All Types Used Equipment
From a Splicer to a Complete Studio

Write—Wire—Phone
or Send Equipment in for Spot Cash

FIORMAN & BABB Murray Hill 2-2928
68 West 45th Street New York 36, New York

MITCHELL 35MM NC CAMERA Want complete outfit with or without blimp Send description and price to Box 1231 AMERICAN CINEMATOGRAPHER

WANTED

WANTED

PRODUCTION EQUIPMENT, LABORATORY EQUIPMENT, EDITING EQUIPMENT, 16mm and 35mm FROM SINGLE ITEMS TO COMPLETE STUDIOS TRADES ACCEPTED

THE CAMERA MART, INC
1845 Broadway Circle 6-0930 New York 23, N Y

WANTED

Mitchell — Akeley — B & H — Wall — Eyemo Cameras — Lenses — Equipment
NATIONAL CINE EQUIPMENT, INC
209 West 48th St New York, N Y

POSITIONS WANTED

NEGRO—Catholic experienced cameraman, 35mm newsreel 16mm color productions editing lighting, filling also projectionist MALCOLM MYERS, 3424 Clark Ave St Louis 3, Missouri

CAMERAMAN Director IATSE member, 34, married, seeks permanent or long-term activity with a large industrial or production company Will work in studio and/or anywhere on location Fourteen years of experience in documentary industrial and commercial cinematography in USA Europe and Africa Familiar with all phases of production and most types of U S and foreign equipment precision camera mechanic and designer Speaks and writes German and French; Security clearance for classified work Write Box 1234 AMERICAN CINEMATOGRAPHER.

CAMERAMAN DIRECTOR experienced in all phases of film production Commercial TV, national sports news and documentaries desires responsible permanent position with commercial studio Box 1236, AMERICAN CINEMATOGRAPHER

ASSIGNMENTS WANTED

ALASKA assignments, 16mm sound or silent, 35mm silent DON CUTTER 238 4th Avenue, Anchorage, Alaska

FINE mobile 16mm production unit now available for assignments in Mid-America Write LEO MARKUS, Kaleidoscope Motion Picture Productions 140 W 54th Street Chicago 9 Illinois

U.S. ASSIGNMENTS 16mm silent Experienced cameraman for industrial, Construction, Mine and Mill, Logging Agricultural Legal Scenic, Oddities and Travel subjects ORVILLE SNIDER P O Box 32 North Hollywood Calif SUnset 2 5256

LABORATORY & SOUND

ROCKY MOUNTAIN 16MM HEADQUARTERS
Processing — Printing — Recording
Editing — Production — Rental — Sales
DuPont, Eastman and Pathex films in stock
Write for Price List
WESTERN CINE SERVICE, INC
114 E 8th Ave , Denver 3, Colo TAbor 5-2812

SOUND RECORDING at a reasonable cost High Fidelity 16 or 35 Quality guaranteed Complete studio and laboratory services Color printing and lacquer coating ESCAB MOTION PICTURE SERVICE, INC 7315 Carnegie Avenue, Cleveland 3 Ohio Phone Endicott 1 2707

16mm SOUND and picture editing—sound recording—music—effects DON DUNN'S EL RANCHO AUDIO near Palos Verdes and L A Harbor 26246 Fairview Avenue Lomita Calif DAvenport 6 4925

INSTRUCTION, CORRESPONDENCE SCHOOLS, ETC

NATIONWIDE SCHOOL OF CINEMATOGRAPHY—complete professional course in cinematography, covering all phases of motion picture production and technical aspects Many leading newsreel and TV camera men started their careers with a Nation wide diploma Course now available by mail at reduced rates easy installment plan For details write NATIONWIDE SCHOOL OF CINEMATOGRAPHY Dept A 4211 Gaston Ave Dallas Texas

SLIDES

STEREO COLOR DUPLICATES from your slides, 60c; 2x2 25c, mounted Best custom work Send for price list on quantities BELL SLIDE FILMS 200 W 57th St , New York

SHAKESPEARE

(Continued from Page 119)

both physically and psychologically, than in either of his previous films. Heller countered my suggestion that he had been influenced by Mankiewicz's successful concentration on closeups and medium shots in "Julius Caesar" by insisting that the VistaVision ratio demanded this proximity.

"VistaVision makes you concentrate on lighting instead of composition," he added. "Olivier likes great depth in his scenes, which means stopping right down and using all the light you can muster to get the necessary deep focus effects There's only a twentieth of the light we had actually on the screen."

Heller prefers VistaVision to CinemaScope. He feels the latter system is too cramped vertically, and is wary of distortion But his most cutting remarks are reserved for text-book theorists

"You want to write something," he said, "so what do you do? Go and read how to write? No, you just go ahead and write it Well, I just go ahead and light a set It's all a matter of practice."

WHAT'S NEW

(Continued from Page 70)

Telephoto Lens

A new Angenieux 3-inch f/2.5 telephoto lens for 16mm cine cameras has been announced by Bell & Howell Co. Chicago. New lens replaces the company's 3-inch f/3.5 lens, and is made exclusively for Bell & Howell.

New lens is a 5-element true telephoto with the distance from film plane to front of lens only 2.4 inches. Because of its compact size, it can be used on camera turrets without optical or physical interfeernce in combination with most other lenses.

Iris click-stops range from f/2.5 to f/32 with a focusing scale of 4 inches to infinity The depth of field scale is clear and easy to read Lens has a C-mount and rotating back for setting iris and focusing marks at the most convenient point It retails for $99.50

Animation Stand

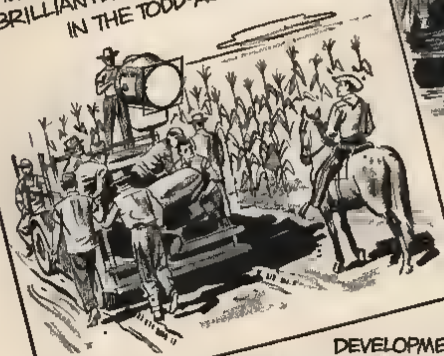
Animation Equipment Inc , 38 Hudson St., New Rochelle, N Y , announces the new Oxberry stand and compound for animation of films and slides It features the exclusive Tri-motion which gives live motion effects for pictures by combining a number of image movements in the animation procedure.

SEEING IS BELIEVING!

FIRST OPTICAL INSTRUMENT

OTHER THAN SPECTACLE LENS WAS THE CAMERA OBSCURA, PERFECTED BY PERSIAN SCIENTIST Kamāl al-dīn ABOUT 1320 A.D. CONSTRUCTED LIKE A PIN-HOLE CAMERA, THIS DEVICE REPRODUCES, IN MINIATURE AND IN COLOR, SCENES OUTSIDE THE APERTURE.

A MODERN OPTICAL ACHIEVEMENT—NEW WIDE SCREEN SYSTEMS ARE THRILLING AUDIENCES WITH SUCH OUTSTANDING FILM SPECTACLES AS **OKLAHOMA,** BRILLIANTLY CAST AND PRODUCED IN THE TODD-AO PROCESS.



"NATIONAL" CARBONS, TOO, KEEP PACE WITH OTHER STUDIO DEVELOPMENTS.

NATIONAL CARBON'S NEW "YELLOW LIGHT" CARBONS PROVIDE TRICKY LIGHTING EFFECTS ON SAMUEL GOLDWYN'S **GUYS AND DOLLS** SET SHOWN HERE. ONLY NEGLIGIBLE FILTERING IS REQUIRED TO MATCH COLOR FILM EMULSIONS.

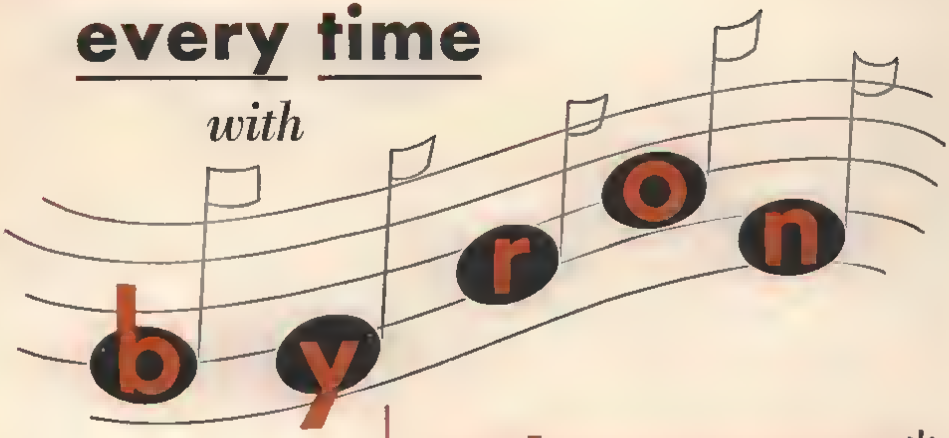
THE "NATIONAL" CARBON ARC . . . NOTHING BRIGHTER UNDER THE SUN

The term "National" is a registered trade-mark of Union Carbide and Carbon Corporation

NATIONAL CARBON COMPANY

A Division of Union Carbide and Carbon Corporation, 30 East 42nd Street, New York 17, New York
Sales Offices: Atlanta, Chicago, Dallas, Kansas City, Los Angeles, New York, Pittsburgh, San Francisco
IN CANADA: Union Carbide Canada Limited, Toronto

color harmony every time with byron



color-correct* prints . . . .

Quality conscious? Byron color-correct* prints are what you want. Get duplicate prints processed with exacting fidelity — color prints in balance that retain all their natural beauty with full depth and clarity. Color-correct* is a Byron exclusive, the result of many years of engineering research and development by a pioneer laboratory — staffed by master craftsmen — working with the finest equipment at top level efficiency. Choose the leader in the 16mm color field. Time important? Try our 8-hour service.

You'll also have production harmony every time you schedule these Byron 16mm facilities:

script
art
titling
animation
editing
sound effects
recording
location photography
music library
sound stage
complete black-and-white laboratory facilities
precision magnetic striping

byron *Studios and Laboratory*

1226 Wisconsin Avenue, N.W., Washington 7, D.C. *DUpont 7-1800*

*Reg. U. S. Patent Office

SEND FOR YOUR COMPLIMENTARY COPY OF THE 3 ILLUSTRATED BULLETINS ON "PRE-PRINT PREPARATION" AS DEVELOPED AND RECOMMENDED BY THE ASSOCIATION OF CINEMA LABORATORIES